

**EXCLUSIVE»**  
**NY SHOOTOUT RESULTS** p.22



**DON'T MISS »**  
**EXPERT TECH TIPS** p.54  
**22 HOT PRODUCTS** p.58  
**LIGHTING ADVICE** p.48  
**BEST VERMONT SIGHTS** p.62

# AMERICAN SNOWMOBILER

NORTH AMERICA'S #1 CHOICE

FEB. 2016 • [www.AmSnow.com](http://www.AmSnow.com)

## Our top 3 TRAIL SLEDs

**600cc SLEDs OFFER  
IMPROVED RIDE &  
PERFORMANCE!** p.16

Never told before!  
**RESCUE ON  
MT. BAKER** p.50

### VINTAGE EXCLUSIVES

**1991 Shootout Review** p.30 **Forgotten Cats** p.34  
**Iron Legend** p.38 **Custom Stinger** p.66



Ski-Doo MXZ  
Blizzard 600  
E-TEC

**BONUS**  
**ONLINE CONTENT**  
**CODE**  
See Page 3



# PUSH THE LIMITS OF ADVENTURE

Blast through the bumps with the acclaimed rMotion™ and RAS™ 2 suspensions.  
Rail corners in any snow condition with the first adjustable skis, the Pilot™ TS.  
Explore never ending trails or carve pristine meadows with ease on a Ski-Doo® Renegade®.  
Push the limits of riding. **Book a test ride at [tryski-doo.com](http://tryski-doo.com)**

***ski-doo.***



**NEVER  
STOP  
PUSHING™**

**Online Content Code: 1602**

Enter this code at: [www.AmSnow.com/code](http://www.AmSnow.com/code)  
to gain access to web-exclusive content

**COVER  
STORY**

16

**600CC TRAIL  
BOSSSES!**

Taming trails like a  
boss has never  
been more fun,  
fast, and fearless!  
Learn which sleds  
made our top 3!

**AMSNOW.COM**  
See more news,  
photos & videos!

# INSIDE

## FEBRUARY '16

### MUST READS



## 22 Empire State Showdown!

If you weren't at the New York Shootout in Inlet, N.Y., in early December, you missed out! If you made it there, you got a taste of the newly revamped *AmSnow*/Dynotech trail and mod sled shootout. Check out the stats, photos and fun all right here!

## 50 Sled Disaster Strikes on Mtn.

Could you survive many snowmobilers' worst nightmare? Check out one rider's life-or-death story from the peaks of Mt. Baker.

## 30 Throwback February!

*AmSnow* goes old school, retro, and maybe even a little disco! Ok, maybe no disco, but check out our full section of vintage info, sleds, pics, and even a look-back comparison of the now "classic" 1991 New York Shootout!



### REGULAR READS

- 4 SHINY SIDE UP**  
The most interesting column
- 6 IGNITION**  
Best of the Best photos
- 8 COOL NEWS/  
MAIL BONDING**  
News you want, photos of you
- 44 TECH NOTES**  
EFI all the way for me, baby!
- 48 BETTER LIGHTING**  
We look at the newest RideLite
- 54 ASK THE EXPERTS**  
You don't know, till you know
- 58 HOT PRODUCTS**  
So hot! Burned my foot!
- 66 BACKTRACKS**  
A Stinger gets retri-fied

AMERICAN  
**SNOWMOBILER**

American Snowmobiler (USPS # 014-333, ISSN # 1078-6414) is published six times per year (Oct., Nov., Dec., Jan., Feb., Spring) by Kalmbach Publishing Co., 21027 Crossroads Circle, P.O. Box 1612, Waukesha, WI, 53187-1612. Periodical Postage Rates paid at Waukesha, Wisconsin and additional offices. Postmaster: Send address changes to American Snowmobiler, PO Box 62320, Tampa, FL 33662-2320. Canada Post Publication Agreement Number 40010760.

# Stay riding, my friends

## THE MOST INTERESTING VEHICLE IN THE WORLD

**W**hat is the vehicle I picture the Dos Equis guy riding? Of course, it's "the most interesting vehicle in the world" – the snowmobile! Seriously, let's look at this. What other machine can ride on snow, ice, grass, asphalt or water, and jump football fields in a single bound? No other vehicle offers the same performance of a sled for a base price of around \$10,000 US! But we already know that! The machines we ride are unlike any in the world.

Perspective is what this "vintage" issue is all about. We often complain about how expensive sleds are. True, the majority of us don't use sleds in the summer (grass drags or asphalt drags or watercross), so the average snowmobiler is limited to 3-4 months a year. BUT, realistically, so are boaters or motorcyclists if you live in the snowbelts. Most boat owners put their boat in on Memorial Day and take it out on Labor Day. Bikes might get a few more weeks in spring and fall, but both pursuits are expensive. A new Mastercraft ski boat runs \$100K and a new Harley-Davidson Fat Boy runs \$16,700! Heck, a new utility ATV costs \$10K, and a new side-by-side is \$20K!

Nonetheless, it's still nuts to see what we were paying just a few decades ago. We do that in several articles in this issue, including a "From the Vault" article from 25 years ago (yes, 1991 is considered "vintage" now). That shocked me, because my first "real sled," an Enticer 250, is considered ancient by kids today!

**Mark Boncher, Editor**  
mboncher@kalmbach.com



### ON THE WEB

#### ARCTIC RAGE SWEEPSTAKES THE BIGGEST EVER!

Boyesen and *AmSnow*'s Arctic Rage contest has more prizes, more winners and more opportunities than ever! There are numerous chances to win prizes like a Boyesen Rage Cage, Castle X Fusion apparel, 509 Sinister goggles, FXR race gear, a BMP Performance package, Elka shocks, C&A Pro skis, HMK apparel, MBRP swag, Hygear torsion spring spacers, an AMSOIL shopping spree, Divas SnowGear, Stud Boy shaper bars or a subscription to *AmSnow*! Visit [www.boyesen.com](http://www.boyesen.com) or [www.amsnow.com](http://www.amsnow.com) for more info.



#### ASK OUR EXPERTS GOT A QUESTION, BIG OR SMALL?

Go to [www.amsnow.com/forums](http://www.amsnow.com/forums). We have the connections and the know-how to answer your tough questions. No question is too small, so whether you are a novice or a veteran rider needing help, we are ready!



#### WATCH IT AND LIKE IT! WE'VE GOT VIDS!

Check out all kinds of independent video, including all the most recent episodes of *AmSnow TV* at [www.amsnow.com/videos](http://www.amsnow.com/videos), or on our YouTube channel at [www.youtube.com/americansnowmobiler](http://www.youtube.com/americansnowmobiler). Also, like us on Facebook and follow us on Instagram to get up-to-the-minute updates from *AmSnow* year-round!



**FIND AMERICAN SNOWMOBILER ON YOUR FAVORITE SOCIAL MEDIA OUTLETS!**

# AMERICAN SNOWMOBILER



**Editor** Mark Boncher  
**Art Director** Elizabeth M. Weber  
**Associate Editor** Ross Halvorson  
**Assistant Editor** Emily Hare  
**Technical Editor** Olav Aaen  
**Vintage Expert** Les Pinz  
**Western Editor** Ryan Thompson  
**Production Coordinator** Sue Hollinger-Yustus  
**Test Riders** Les Pinz, Butch Veltum, Elizabeth M. Weber, Ross Halvorson, Mark Boncher  
**Contributing Photographer** Ryan Thompson  
**Contributing Writers** Mike Carr, Tom Clement, Bob Island  
**Executive Editor** Mark Savage

### KALMBACH PUBLISHING CO.

**President** Charles R. Croft  
**Senior Vice President, Sales & Marketing** Daniel R. Lance  
**Vice President, Editorial** Kevin P. Keefe  
**Vice President, Consumer Marketing** Nicole McGuire  
**Corporate Advertising Director** Ann E. Smith  
**Corporate Art Director** Maureen M. Schimmel  
**Art and Production Manager** Mike Soliday  
**Single Copy Specialist** Kim Redmond  
**Advertising Sales Manager** Steve Meni  
**Advertising Sales Representative** Steve Dake  
**Classified Advertising Sales** Kathy Matt  
**Advertising Services Representative** Christa Burbank

### TO REACH US

**Editorial:** 262-796-8776  
e-mail: [editor@amsnow.com](mailto:editor@amsnow.com)

**Customer Sales and Service:**  
Phone: 800-533-6644  
Outside U.S. and Canada: 813-910-3616  
Customer Service: [Amsnow@customersvc.com](mailto:Amsnow@customersvc.com)  
Digital: [Amsnow.Digital@customersvc.com](mailto:Amsnow.Digital@customersvc.com)  
Back Issues: [Amsnow.SingleCopy@customersvc.com](mailto:Amsnow.SingleCopy@customersvc.com)

**Advertising Sales:** 888-558-1544  
e-mail: [adsales@amsnow.com](mailto:adsales@amsnow.com)

**Selling American Snowmobiler magazine or products in your store:**  
Phone: 800-558-1544 Press 3  
Outside U.S. and Canada: 262-796-8776 Ext. 818  
Fax: 262-798-6592  
e-mail: [tss@kalmbach.com](mailto:tss@kalmbach.com)  
Web site: [www.Retailers.Kalmbach.com](http://www.Retailers.Kalmbach.com)

© 2015 Kalmbach Publishing Co. All rights reserved. Title is registered as trademark. This publication may not be reproduced in part or in whole without written permission from the publisher. Please send editorial contributions to: Editor, American Snowmobiler, P.O. Box 1612, Waukesha, WI 53187. We cannot assume responsibility for manuscripts or materials submitted to us.

**SUBSCRIPTION RATES:** 1 year (6 issues) \$14.95, 2 years (12 issues) \$26.95, 3 years (18 issues) \$37.95. Canadian: 1 year \$19.95, 2 years \$34.95, 3 years \$47.95. International: 1 year \$22.95, 2 years \$42.95, 3 years \$61.95. Payable in U.S. funds drawn on U.S. banks only. Canadian price includes GST (BN 12271 3209 RT). Expedited delivery service surcharges: Domestic First Class \$15.00/yr; Canadian Air \$15.00/yr; International Air \$35.00/yr. Printed in the U.S.A.



# PEACE OF MIND

"AFTER SEVERAL RECENT TESTS OF VFORCE REED VALVE SYSTEMS IN POLARIS AND OTHER OEM APPLICATIONS, WE ARE CONFIDENT YOU WILL ABSOLUTELY SEE A LONGER LIFESPAN OVER YOUR STOCK REEDS, PLUS BETTER PERFORMANCE. THIS IS AN EASY AFTERMARKET UPGRADE, AND THE REWARDS ARE WELL WORTH IT."

—AMERICAN SNOWMOBILER MAGAZINE



**VFORCE3**  
BY MOTO TASSINARI

## THE VFORCE3R

Designed exclusively for the Polaris twin  
600/700/800 Cleanfire® engines

### **VFORCE3R** FEATURES

- \* RUBBER OVERMOLDING ENHANCES PETAL LIFE
- \* MODEL SPECIFIC AIRGUIDE FOR MAX FLOW
- \* EXCEPTIONAL HORSEPOWER GAINS
- \* ALL-NEW EXCLUSIVE REED PETAL MATRIX
- \* INCREASED FUEL EFFICIENCY



## No landing required!

**Photographer:** Justin Stevens

**Rider:** Taylor Fisk

**Location:** Alpine, Wyo.

We're not sure how this sequence ended, but we do know that sometimes the best shots don't always require you to stick the landing. Here's hoping everything came out OK for Taylor Fisk on this extreme Motorfist photo shoot!

## FACTS, RUMORS & PEOPLE

**Polaris Industries Inc.** was named an official partner of the Minnesota Vikings and a founding partner of the team's new U.S. Bank Stadium ...

**Boss Products, LLC**, purchased the brand "Boss Seats" of Boss Seat Technologies, LLC. The company will focus on building more snowmobile seat and storage solutions, and broadening the product offering ... **Hayes**, which makes brakes for Polaris and Arctic Cat and the aftermarket, has a new CEO in Philip Malliet. The company also has a new logo, branding and website, [www.hayesbrake.com](http://www.hayesbrake.com) ...

**Jacques Villeneuve** has returned to racing and will compete in the Ski-Doo Grand Prix de Valcourt in February. The 62-year old veteran retired last year during a fight with cancer, but he has been medically cleared to race ... **Polaris** has partnered with **ArcticFX Graphics**

to produce a new design app called SledWrapR. The app allows Polaris snowmobilers to create unique custom wraps for their sleds. Polaris also released an app called "Snow Trails by RiderX," which offers an interactive trail map and state-wide trail downloads ...

**Mystik Lubricants** expanded its sponsorship of three-time X Games gold medalist Colten Moore who also has a new book out "Catching the Sky", published by Simon and Schuster.



Joe Wiegele / Red Bull Content Pool photo

**NEWEST SLED EVENT** training runs have started for Levi LaVallee for this year's new Snow Boundaries cross-discipline race in Duluth, Minn.

## Red Bull enduro event has 'Snow Boundaries'

**O**n Feb. 20, Red Bull will host **Snow Boundaries**, a multi or cross-discipline endurance sled race in Elk River, Minn. The event will feature snocross, hillclimb, cross country and ice racing components, all of which will take place on a 13-mile loop through the Extreme Motor Park (ERX).

Open to both professional and amateur racers (ages 18 and over), the course is designed to push riders to their limits. Competitors will have to navigate a variety of technical terrain, including challenging natural and man-made obstacles, water skips, log crosses, rock chutes, bridge crossings and vertical climbs.

"This is the sort of crazy, crisscrossed and challenging run that snowmobilers dream of riding," said Levi LaVallee. "With so many miles of northern Minnesota glory to work with, it was a dream come true to use every inch to create the most bad-a\*\* route I've ever seen."

The race will feature two classes: a "Ditchbangers" class designed for amateur racers who are 18 years and older, and an "Open Racer" class for professional racers from all snowmobile racing disciplines, such as snocross and cross country. This will include any rider with affiliations and races on sanctioned circuits.

Open Racers will complete a one-lap timed qualifier for starting line positioning while Amateur racers will line up based on a random draw. Racers will leave the starting line in groups of 10 at 30-second intervals. Amateur racers will compete for 2 hours +1 lap while the Open Racer class will compete for 4 hours +1 lap.

Class payouts will be as follows: \$30,000 in cash and prizes for the Ditchbanger class; \$50,000 for the Open class.

For an exclusive interview with Levi see [AmSnow.com/news](http://AmSnow.com/news). Snow Boundaries Rules: [www.redbull.com/snowboundaries](http://www.redbull.com/snowboundaries).



## AmSnow names Ryan Thompson Western Editor

**>>** *American Snowmobiler* strives to give snowmobile enthusiasts the highest quality product with the most unbiased, independent, professional, and exciting content available. Our ability to give readers and partners the very best experience starts with our editorial. So it is with great excitement that we congratulate **Ryan Thompson** on becoming the new face and voice of our Western Editorial team.

As the Western Editor, Ryan replaces Stephen Clark, who has been on the *AmSnow* team for half a decade. "It is always sad to part ways with a fantastic team member like Stephen," said *AmSnow* Editor Mark Boncher. "However, we will still be in regular contact with him, as Stephen will now be working in the communications and marketing department at Klim."

Ryan Thompson has been taking photos for *AmSnow* for over a year now. He is also the RMSHA photographer and sits on the board for the hillclimb association. He owns RLT Photos and has been riding sleds basically since birth. Home base is Hyrum, Utah, but Ryan has ridden just about everywhere out west, and his racing and backcountry roots run deep. Ryan's technical riding abilities, excellent photographic skills, long-time industry experience and more make him the perfect choice to be *AmSnow's* main man out west.

# 2017 snowmobile predictions



**1** Will Arctic Cat have a new 800cc version of their CTEC motor for 2017?

**2** Will there be even more 146-inch Ski-Doo sleds in the future like the Renegade Backcountry?

**3** Will there be a big new 4-stroke turbo in a truly Yamaha chassis in 2017?

**4** Was 2016 the last model year for Polaris' Switchback Assault?

**When you pick this issue up** off the newsstand, we'll just be learning about the new 2017 models, but like you, we like to guess what is coming beforehand! For now, your guess is as good as ours... so here's ours:

## ARCTIC CAT

A three-quarter sled is on its way? Gosh, we hope so! It's time the OEMs, not a Chinese knockoff came out with one! The 65-hp 4-stroke introduced in 2016 in the utility segment might work for the motor. We could easily see a new mountain chassis as well, although we're maybe another year away on that. It's the last piece of the mountain sleds left to change... unless they bring a new 800cc CTEC engine, which seems likely as well. But we've swung and missed on that one a lot! Look for more in the touring/enduro venture side of the market. Motorfist is in Cat's dugout too so they will look to have more in their garment biz. Then there's the single ski snow vehi-

cle machine teased at Haydays that's "not a snowbike".

## POLARIS

Possibly a new 600cc engine going after the same weight and efficiency principles as the 800cc H.O. engine did in MY15? Cat's C-TEC2 and the E-TEC H.O. have set the stage nicely for Polaris on this one, plus there's lots of 'creativity' out of Polaris race trailers this year. We kind of think Polaris will do away with the exposed rear suspension and go back to a more traditional tunnel like on the Indy and new Polaris race sled. But there is a lot of engineering time, money and energy into perfecting the Rush. We also see the SKS replacing the Switchback

Assault. There's just not room for both in the market. Is a 128-inch Indy wishful thinking? Look for leveraging of the Klim brand on the PGA side and certainly more RiderX hype and Lock and Ride accessories.

## SKI-DOO

Do we finally get a turbo offered for the 1200 4-stroke? Probably not. We guessed wrong on that last year, but we still want it! Two OEMs already offer them and they are oh so fun! Further expansion of the 129-inch rMotion is almost a given. Will we see more 146-inch models? It is a great length for folks who want to ride deep snow AND trails and the Backcountry went to that length last year. Ski-Doo is the only OEM to attempt the ¾-sized sled in recent memory with the Freestyle, but got burned... are they willing to try again? Some Ski-Doo folks would like to see a 'trail friendly' version of the X-RS with a big windshield, hearty bum-

pers, and some other cool stuff. Like the Enduro, but even more performance oriented. Never to be outdone on the tech side, a new standard GPS display for spring models is appropriate.

## YAMAHA

Something big is coming, we can feel it! We hope it's a lighter chassis to replace the Delta Box II so no more Vectors or Apex's. We are BEGGING for a new true Yamaha chassis! Also, the current 80hp Phazer might finally fade away. We'd love to see a factory turbo offering rather than the current dealer-install option too. Look for more suspension upgrades and don't be surprised if there is something that resembles a Snow Scoot in the works – another joint venture with Cat on a three-quarter sled? Going out on a limb, we know Yamaha has looked at the snowbike market A LOT so hopefully there's a new snowbike-ish in the works, but guessing it will be more trail oriented.



## New 2017 Polaris AXYS tunnel?

It's been a decade since Polaris redesigned their snocross sled and introduced the IQ Racer, but it seems the OEM has finally made some changes this year.

Much is still unknown about this newest snowmachine, as Polaris has been extremely tight-lipped about it so far. So much so that in the January racing issue of *American Snowmobiler*, we listed the previous IQ race sled as the official Polaris snocross ride this year. By all indications, including official media releases from Polaris and their big "Hay Days Reveal," the IQ was slated for another season on the track. Our guess is that recently released updated race machine simply hadn't cleared the development hurdles in time for a Hay Days announcement.

According to the Facebook post from Polaris (just 11 days prior to the snocross season opener in Duluth, Minn.), **the new race sled features "an all-new body style, engineered by utilizing AXYS design philosophies & race-inspired, improved ergonomics that will allow our racers to rip even harder."**

The sled is a hybrid of the IQ and AXYS chassis with a more standard tunnel. If the same design principles hold true to the goals of consumer AXYS sleds, this means

that all Polaris pro riders are guiding a much lighter chassis.

Our friends at Racewerx had a more standard tunnel at Haydays and Polaris engineers were studying it pretty hard!

In Duluth, we saw this sled in Leighton Motorsports' trailer, while talking to riders Corin Todd, Trevor Leighton, and Team Manager Robbie Malinoski. They've made several other notable changes to the sleds other than what was handed out by Polaris, such as new front suspension.

"By all means, it's much lighter than last year's sled," confirmed Malinoski. "We've added a ton of adjustability to the front end as well. You can change the caster, change width, pretty much change anything you can think of up front."

According to Todd, the biggest benefit of the new body is the sight lines for rid-



**POLARIS PRO RIDERS agree that this year's snocross sled is lighter and easier to maneuver than last year's racer.**

ers and racers.

"You can see much more of the terrain immediately in front of you with the slimmer plastic," said Todd. "This year's sled

is much easier for riders to maneuver which is a big advantage when you're moving to attack or cornering positions."

One could draw inferences about the potential engine, too. Polaris developed a new high output engine with quicker revving, a lighter crankshaft, engine bypass for quicker warm-up times, new engine mounts, etc for the AXYS recently. Given the 600cc engine restrictions on the snocross track, is Polaris testing a new 600cc consumer engine with similar improvements? We can only hope!

## X GAMES ASPEN TO FEATURE FOUR FESTIVAL VILLAGES

**IN ADDITION TO THE** competitive athletic events at the 2016 Winter X Games in Aspen, Colo. (Jan. 28-31), there will be four interactive festival villages to enhance the family-friendly cultural experience at Buttermilk Mountain. The four X Games Aspen festival villages will include:

- **GALLERIA:** Enter to win free giveaways, snag an athlete's autograph and enjoy loads of fun entertainment (spin art, DJ performances, gear).
- **GAMING SHACK:** Meet some of the world's best gamers as they compete for huge prizes and X Games gold in the Xbox Halo 5 Tournament.
- **PLAYGROUND:** Take a turn in the ESPN

Sport Zone, kick back in the World of X Games Cinema, or show off your skills in the Snowskate Park. Young ones can ride a kid-size snowmobile, go penguin bowling, make a snowman and more.

• **SOUND FACTORY:** Attend concerts by some of the hottest artists, including deadmau5, DJ SNAKE, KYGO, Nas, Run The Jewels and Twenty One Pilots. Plus, don't miss the unique art installation of ice guitar sculptures.

General admission to the action sports competitions and festival villages is free to the public. More details on schedules and tickets are available at [www.XGames.com/tickets](http://www.XGames.com/tickets).



### AmSnow Event Calendar

**WANT TO KNOW** what snowmobiling races and events are going on in your area in the coming months? Check out AmSnow's online calendar! You can even add your own event. To get started, go to [www.AmSnow.com/events](http://www.AmSnow.com/events).

## Arctic Rage sweepstakes!

Performance heavyweight Boyesen and *American Snowmobiler* have teamed up with some of the best companies in the snowmobile industry to bring you the Arctic Rage Sweepstakes!

This 4-month-long contest is FREE to enter and features great

monthly prizes from companies such as 509, HMK, Castle X, Divas SnowGear, Bikeman Performance, Elka Suspension, C&A Pro Skis, MBRP, Hygear Suspension, AMSOIL, Stud Boy, *American Snowmobiler* magazine and more! The grand prize winner will take home a complete

FXR racing apparel package, and the first prize winner will receive a complete Rage Cage system from Boyesen.

The Arctic Rage sweepstakes runs now through Feb. 27, 2016. No purchase necessary. To enter, go to [www.boyesen.com/arcticrage.php](http://www.boyesen.com/arcticrage.php).

## NY Covered Bridge Challenge

If you enjoy riding trails through covered bridges and exploring new destinations by snowmobile, then you might want to try your hand at **New York's inaugural Covered Bridge Challenge (CBC)**, a **663.1-mile route that spans 14 counties and crosses 10 different covered bridges**. The event is a collaborative effort among several of the state's snowmobile clubs, tourism offices and Mohawk Valley GIS, creators of NYSnowmobileWebmap.com. Arctic Cat is the main sponsor.

To enter the Covered Bridge Challenge, go to the NYS website and upload photos of yourself with your sled and each bridge in the background. If you post photos of all 10 locations by April 15, 2016, you will receive a CBC decal. Families are encouraged to participate; each child age 12 and under can earn his or her own decal by completing the challenge.

The best part of the CBC is that you can ride it at your own pace. Riders are strongly encouraged to linger and explore side trails and local happenings. For those diehard high-milers who aspire to complete the route in one weekend (and you know who you are),

go for it! Where there's a will (and snow), there's a way.

A map of the entire CBC route is available on the latest version of the state-wide trail app (\$19.95) that is offered by NYSnowmobileWebmap.com. The website also features an interactive trail map, which includes a free "Route Planner" that gives riders the ability to create, save and share their own turn-by-turn routes.

Anyone who purchases a Premium Phone App or GPS Overlay from NYSnowmobile WebMap.com will be automatically entered

to win a 2016 Arctic Cat ZR 6000 El Tigre, and everyone who completes the challenge will be entered to win a Nor'easter trailer courtesy of Blizzard Manufacturing. Other prizes that will be awarded

include a \$100 fuel card courtesy of Fastrac Markets (first person to complete the CBC), a \$100 gift certificate for Sledfreak.com (first youth to complete the CBC), and Spider Grips (eight riders who braap at least eight of the 10 bridges).

**For more info** on the Covered Bridge Challenge, go to [www.nysnowmobilewebmap.com/bridgeChallenge.php](http://www.nysnowmobilewebmap.com/bridgeChallenge.php).



## THE 10 COVERED BRIDGES:

1. Culvert Rd. Tunnel, Medina, N.Y.
2. John D. Hojnowski Memorial Bridge, Attica, N.Y.
3. The Lodge at Hidden Valley Bridge, Varysburg, N.Y.
4. Old Truck Bridge, Strykersville, N.Y.
5. Cuba Driftbuster's Bridge, Cuba, N.Y.
6. Oswego County/Square Valley Trailblazers, Oswego County, N.Y.
7. Boonville Bridge, Boonville, N.Y.
8. Deerfield (Hajdasz Family) Bridge, Deerfield, N.Y.
9. Salisbury Center Bridge, Salisbury Center, N.Y.
10. Old Forge/Town of Webb Bridge, Old Forge, N.Y.



# You Tube

**Check out AmSnow on YouTube!**

American Snowmobiler's YouTube channel brings you even more great snowmobiling footage! Check out the latest episode of *AmSnow TV*, great snowmobile tech tips, exclusive *AmSnow* shootout coverage, issue previews and much more! Best of all, subscribing to our YouTube channel is **FREE!** Check it out: [www.youtube.com/AmericanSnowmobiler](http://www.youtube.com/AmericanSnowmobiler)

## Test drive Ontario trails

Have you ever felt the slightest pang of jealousy while thinking about the annual snow totals in Ontario? Well, now American sledders can get a taste of what it's like to play in the Canadian powder without having to pay for a trail permit.

**During Feb. 13-15, 2016, the Ontario Federation of Snowmobile Clubs (OFSC) is inviting riders to test drive the province's 20,000 miles of snowmobile trails at no charge.**

The limited-time Try Our Trails Permit is available for those who pre-register online in advance, starting at 12:01 a.m. on Monday, Feb. 1, 2016.

To access OFSC trails, this printed permit must be affixed to the sled to which it is assigned, in accordance with Ontario law. Any sled on OFSC trails without a permit from Feb. 13 to 15 is still operating illegally, and the operator can be subject to a fine of up to \$1,000, so get your free permit today!

Riders must also carry a valid driver's



**TRY OUR TRAILS** What's better than exploring thousands of miles of prime snowmobile trails in Ontario? Doing it for free!

license, sled registration and proof of insurance, as well as follow all the rules and assumptions for safe OFSC trail riding.

**For more info** about snowmobiling in Ontario, visit [www.ofsc.on.ca](http://www.ofsc.on.ca).



## Trailering tips

Loading up your trailer can turn an epic day of riding into a disaster. It can be difficult and unsafe if it's not done properly. We've probably seen more accidents in the parking lots loading and unloading trailers than we've seen on the actual trails. It's easily one of the most overlooked safety aspects of the sport.

The folks at Caliber Products gave us a few tips for making sure the trailer/towing experience doesn't sour the rest of our day. Here's a quick guide!

First, make sure you've got the trailer hooked up properly. Check to make sure you've got the right size ball for your trailer. **Most enclosed trailers require a 2-inch or 2 $\frac{3}{16}$ -inch ball. Double check!**

You also want to

ensure your hitch is at the correct height to level the trailer. You may need a "drop" or "rise" on your hitch to accomplish this. (We've detailed this step in the December 2014 issue of *AmSnow*, p.54.)

When connecting your trailer to the hitch, it's a good idea to cross your safety chains in an "X" pattern. Doing so will create a cradle of sorts that will catch the trailer tongue should

it pop off your hitch. Pay close attention when connecting your lights as well. You don't want the light cord tangled in the safety chains or dragging on the ground. Both could cause the lights to disconnect.

Don't forget about your tires. Check both vehicle and trailer tires for proper inflation and tread. Run trailer tires at maximum recommended air pressure (most commonly 60 PSI, but

consult the indication on the tires first) for optimal fuel mileage and longer sidewall support life.

How you load the trailer is just as important as all the preliminary steps we just talked about. Think of your trailer as a seesaw and the wheel axle as its fulcrum. You want an extra 10% of your total load weight at the front end of the trailer. In other words, 60% of your load weight should be in front of the axle, and 40% behind it. Too much weight behind the axle will cause the trailer tongue to lift, which can cause your rear vehicle tires to lose traction and send you fishtailing down the road.

## COOL TOOLS

HERE ARE A FEW CALIBER PRODUCTS that we install on every *AmSnow* trailer:

**LowPro Grip Glides** – Protect your trailer deck by providing a smooth channel for your sled's carbides to run across. They also ensure safe footing on trailer ramps and doors (also great traction for ATVs) when just a dusting of snow turns your ramp into a wicked ski slope!

**Trax Grabbers** – Create traction for your sled when loading and unloading. Spinning a studded track up and down a trailer ramp/door will quickly destroy it, and getting a running start to load at speed



creates a dangerous situation. Trax Grabbers catch the lugs of the track to allow for safe loading and unloading at reasonable speeds.

**Edge Glides** – Create a smooth transition from parking lot to trailer ramp.

For more on Caliber products, visit their website, [www.caliberproductsinc.com](http://www.caliberproductsinc.com).



## POLL RESULTS

What is your top snowmobiling destination in North America?

1. Western Upper Peninsula, Mich.
2. Eagle River/St. Germain, Wis.
3. Tug Hill, N.Y.
4. Old Forge, N.Y.
5. The County, Maine
6. Abitibi-Temiscamingue, Quebec
7. Great North Woods Region, N.H.
8. West Yellowstone, Mont.
9. Togwotee, Wyo.
10. Revelstoke, B.C.



**\$2,255**

THE AVERAGE AMOUNT THAT AN *AMSNO* READER SPENDS ON SNOWMOBILE TRAVEL ANNUALLY.

## Hot hybrid

**H**ere's a totally hot sled we were introduced to recently by one of our contributors. This is a follow-up article to the FOX suspension that was in Cliff Randall's Mach Z in our January 2016 issue (p. 62).

This new trail rider (with a kick) is a Ski-Doo Renegade 800 E-TEC, and it is the only one of its kind. **This sled is capable of reaching 120mph**



(recorded on a 1/4-mile ice track at the North Bay Snowmobile Speed Runs) with a little boost from a

60hp shot of Straightline Performance nitrous oxide. Within minutes, though, you can convert it into a full-blown

FAMILY trail sled, complete with an additional heated seat.

A full FOX suspension with custom air shock suspension, similar to what was on Cliff's Mach Z, comes from H2R Distributing, with modifications by Tricked Toys. Look closely, and you'll see both a custom-built, "frenched-in" nitrous oxide gauge for the track and a BRP GPS system for the trails.



## GIVING CREDIT

### IN THE DECEMBER

2015 issue of *American Snowmobiler*, we failed to list the correct photo credit for this Super Sled Shootout photo on p. 42. The photo was taken by Jake Forstall, whose father was also racing this weekend. We hope to see more great shots from Jake in the future!

## CLARIFICATION

### IN OUR JANUARY 2016

cover story comparing turbo trail sleds ("Turbo ... Engaged!", p. 16), we incorrectly stated that Arctic Cat "introduced the Suzuki twin T660cc liquid 4-stroke into the trail lineup" in the mid-2000s. The T660 was actually a triple. We apologize for the error and thank Ray Speckel of Pequot Lakes, Minn., for keeping us honest!

## BRINGING NEW BLOOD TO SNOWMOBILING

**There's a big need** in the industry to introduce new riders to the sport of snowmobiling. One club in New York is definitely doing their part to bring new blood to the snowmobile community. Each season, the Seven Valley Snow Goers of central New York partners with local dealers to host a "Demo Day."

This year's event will be held in Homer, N.Y., on Jan. 30 (conditions permitting) as part of the town's Winterfest (Jan. 29-30, 2016). Club members and dealers will give snowmobile and groomer rides to kids or anyone looking to get into the sport. It's a great way to introduce new riders to all the enjoyment snowmobiling offers, as well as introduce folks to the club. Those new to the sport can get a closer look at the latest and greatest sleds offered by manufacturers.

"This is a great way to introduce people young and old to our sport and the newest technologies," said Randy Wheelock, vice president of the Seven Valley Snow Goers.

This is a great example of just one way we can bring new riders into our sport. Without events such as these, the whole industry suffers, from the manufacturing executives all the way down to clubs.

We'd love to know what your organization does to promote snowmobiling to new riders! Tell us in an email: [editor@amsnow.com](mailto:editor@amsnow.com).



**FOR THE FUN OF IT** Melissa Burt, president of the Seven Valley Snow Goers club, gives snowmobile rides on her own Polaris 2-up.

## Caption this photo!

WE ASKED OUR FACEBOOK FOLLOWERS TO HELP WRITE A CAPTION FOR THIS PHOTO OF MARK SAVAGE, AMSNOW'S EXECUTIVE EDITOR. HERE ARE SOME OF THE BEST WE RECEIVED:

- » "You must be this high to ride this ride" – Corrine A Feeley
- » "You better behave or you're going right back on the trailer" – Chet Gower
- » "Where did my wife fall off? You have to tell me, I love you but we have to go back and get her!" – Don Johnson
- » "The key has to be right here. The snow couldn't have covered it already." – Ken Kemon



- » "If they ever let me outa this cage I'm going to da U.P. where they don't have any fences." – Michael Anderson

LIKE us on Facebook!

# castlex

## GET YOUR REAR IN HIGH GEAR!

- WINDPROOF/WATERPROOF/BREATHABLE
- COMFORT-FLOW™ POLY MESH LINING
- BACKPACK FRIENDLY VENTEC® CORE AND SLEEVE VENTS
- WIND BLOCKING MAGNETIC PLACKET
- LYCRA® HAND GAITERS
- EXCELS BOTH ON AND OFF TRAIL

3-IN-1  
REMOVABLE  
WEARABLE  
LINER



THRUST JACKET \$329<sup>99</sup>  
TUNDRA BIB \$299<sup>99</sup>



TRS GLOVE \$79<sup>99</sup>



FORCE GOGGLE \$64<sup>99</sup>



BARRIER 2 BOOT \$179<sup>99</sup>

SEE THE COMPLETE LINE AND DEALER LOCATOR AT

**castlesales.com**



Thinsulate Platinum  
INSULATION

3M Scotchlite®  
Reflective Material

©2015 CASTLE SALES CO., INC.  
3M Thinsulate and Scotchlite are trademarks of 3M

13 MILE LOOP   HILLS   ICE   TRAIL   RUGGED TERRAIN   #SNOWBOUNDARIES




**FEBRUARY 20**  **ELK RIVER, MN**

**2 CLASSES:**  
**DITCHBANGER | OPEN RACER**

**REGISTER NOW AT [REDBULL.COM/SNOWBOUNDARIES](http://REDBULL.COM/SNOWBOUNDARIES)**



**THE LEADER**  
 IN RECONDITIONED ENGINES,  
 PARTS AND ACCESSORIES

**MOST COMPLETE INVENTORY**  
 IN NORTH AMERICA

**CYLINDER REPLATING**  
**ENGINE AND CRANKSHAFT REBUILDING**  
**CVT PULLEYS, PISTONS, GASKETS AND MORE!**



9701 S, 58th st., Franklin, Wisconsin, 53132-9107

**WWW.CVTECH-AAB.COM**

Fax : 1 (866) 418-4786

**1 (866) 802-2404**

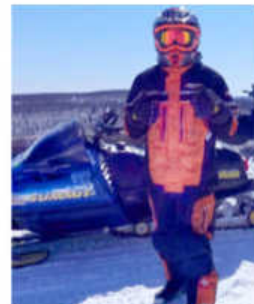
## MAIL BONDING READERS RIDE N' WRITE!

### RIDING BUDDIES

Joseph A. Lauerman of Germantown, Wis., took this photo of his riding buddies, Frank DuBois and Michael Michalski, looking vintage. The guys were donning coats from the late 1960s as they stood in front of an old Polaris Super Voyager. The photo was taken during Braapfest 2015 at Springstead Lake Lodge in Park Falls, Wis.



**READY TO RIP IT** Wes Shemanski can't wait to get this sporty new 2016 Yamaha Apex X-TX LE on the snow! Purchased from Port Yamaha in Port Washington, Wis., the spring-buy 146-inch sled features a silver paint scheme, FOX Float shocks, Singleshot suspension, a 1.75-inch lugged Backcountry track and performance dampers.



**ON TOP OF THE WORLD** Jason Jukkala sent in this photo of his 15-year-old son with his Ski-Doo Summit on top of Brockway Mountain in Copper Harbor, Mich.

**1.800.883.0294**

**WAHL Bros.**  
RACING PRODUCTS

- Custom Chassis
- Suspensions
- Drive Sprockets
- Gears & Chains
- Fuel Systems
- Traction Products
- Clutching
- Braking

"Performance Products from Performance People"

**WAHLRACING.COM**

**New for 2016**

**Ski Doo**  
Light Weight  
Carbon Silencers  
Fits 600 or 800 Etec  
All models 2009-2016

Now In Stainless!

New LED Helmet Safety Light  
(Many Colors Available)

Ski Doo XP/XS/XM GP Brake Lever  
#MBLEVER \$42.99

**Carbon Sled Parts**

166 Spruce St. • Rutland Vt. 05701 USA  
Phone: 802-747-6673 • Fax: 802-775-1981  
Email: info@carbonsledparts.com  
Website: http://www.carbonsledparts.com

**HotAirSucks**  
hp

New for 2014-15  
Yamaha SR Viper  
Arctic Cat 7000

13hp

9hp

Excell XV7  
Slip-On Silencer  
5lb. Weight Savings

Excell XV7  
Cold Air Ram Tube  
Intake Kit

**22hp**  
total gain

315.691-6916  
www.Excellmotorsports.com



## ARCTIC CAT® AMERICAN SNOWMOBILER DEALER LISTINGS

### ILLINOIS

**Arlington Heights**  
ROUTE 12 ARCTIC CAT  
1306 East Rand Rd.  
847-818-8849  
www.route12rental.com

### MASSACHUSETTS

**Pittsfield**  
PITTSFIELD LAWN &  
TRACTOR  
1548 W. Housatonic St. (Rt. 20)  
413-443-2623  
www.plt.com

### MICHIGAN

**Milan**  
BOB'S ARCTIC CAT  
11024 Dennison Road  
734-439-2149  
www.bobsarcticcat.com

### MINNESOTA

**Marshall**  
CATDEALS.COM  
705 West Main St.  
PO Box 756  
507-337-1000  
www.catdeals.com

**Owatonna**  
SETTE SPORTS CENTER, INC.  
2299 Austin Rd.  
507-451-6922  
www.settesportscenter.com

**Rosemont**  
LIGHTHOUSE MOTORSPORTS  
3316 151st St. West  
651-322-4420  
www.lhmsm.com

**Sauk Centre**  
COUNTRY CAT  
38585 Country Rd 186  
320-352-3534  
www.countrycat.com

### NEW YORK

**Stillwater**  
CENTURY POWER SPORTS  
5920 Memorial Ave. N.  
651-439-2035  
www.centurypower.com

**Thief River Falls**  
RV SPORTS, INC.  
1412 3rd St. W  
PO Box 411  
218-681-1007 800-826-5403  
www.rvsports.com

**Waconia**  
UFC FARM SUPPLY  
801 S. Highway 284  
952-442-7326 888-741-3276  
www.ufcfarmsupply.com

### NEW HAMPSHIRE

**Troy**  
TROY ARCTIC CAT  
136 North Main St.  
603-242-7839  
www.troyarcticcat.com

### NEW YORK

**Rosendale**  
ARCTIC ADVENTURES  
2048 Rt. 32  
845-658-8844  
www.arcticadventures.com

**Scotia**  
ALL SEASONS  
EQUIPMENT, INC.  
60 Freeman's Bridge Rd.  
518-372-5611  
www.allseasonsarcticcat.com

### WISCONSIN

**Big Bend**  
ROAD, TRACK & TRAIL, LLC  
10 minutes southwest of Milwaukee  
I-43, Exit 50  
262-662-1500  
www.roadtrackandtrail.com

Francis Creek  
TA MOTORSPORTS  
Between Green Bay/Sheboygan  
I-43 Exit 157  
920-682-1284  
www.tamotorsports.com

**Palmyra**  
WILLSON'S SPORT & MARINE  
W1250 State Road 59  
262-495-2921  
www.willsonssport.com

### WYOMING

**Cody**  
MOUNTAIN VALLEY  
MOTORSPORTS  
422 W Yellowstone Ave.  
800-667-6218  
www.mountainvalleymotorsports.com

Look for the next issue of  
**American Snowmobiler** at  
these fine dealerships.  
Dealers in this ad have paid to  
participate in a co-op program with  
AMERICAN SNOWMOBILER. This list  
represents only a partial number of  
Arctic Cat dealerships across North  
America.



### **2016 Polaris 600 Indy SP Terrain Dominator**

We really wanted a bigger lug on previous Indys we tested, and this one finally delivered!



# COME BACK TRAIL

BY ROSS HALVORSON • Ryan Thompson - RLT photos

600cc  
SLEDS  
GIVE  
NEW  
FACES  
TO OLD  
NAMES

**T**here's a photo of my earliest snowmobile memory sitting in my office. I'm all of four years old, sitting aboard a 1981 Polaris TXL 340 with a duct taped hood. The engine is off, it's going nowhere, but I'm having the time of my life imagining I'm riding with the "big guys," tearing across the lake for another winter adventure.

I'm sure you have those photos too. And just as you once aspired to ride sleds with the "big guys," there's another generation behind you doing the same thing, and a new generation of sleds is gripping their interest tightly. What sled will those photos be taken on? You might find the names are very similar to those of the "someday-machines" in your old photos. Do the words Indy, Blizzard or El Tigre jog any flashbacks through the cobwebs?

The next generation of trail machines is here and reputation is on the line! Let's take a closer look at Polaris' 600 Indy SP Terrain Dominator LE, Ski-Doo's MXZ Blizzard 600 E-TEC and Arctic Cat's ZR 6000 El Tigre.

## STILL HOLDING

The Indy brand is one ingrained in thousands of trail riders. The Indy 500 was what I aspired to eventually ride with the guys in my family. Just as the 500cc engines helped drive some smaller displacement sleds to extinction in the late 1980s and 1990s, so have the 600s nearly done the same to the 500s. The 500s aren't extinct yet, but you could certainly consider them an endangered species at this point!

If your trail-riding family happens to be anything like mine was, your youngsters have probably sat aboard sleds like the new Polaris 600 Indy SP Terrain Dominator LE, dreaming of their time to romp through the trails. The 2016 Indy might even give you a few flashbacks thanks to that retro-cool red, white and blue color scheme.

Unfortunately, our family's old TXL was not exactly maintained to OEM specifications. So in my younger years, my riding memories consisted of shoulder pain from ripping the pull cord hundreds of times, and then nearly blowing off my eyebrows from spraying ether in the cylinders to get the sled to start.

They continue with a rough-and-tumble ride down the trail, and before the end of the day, spark plugs and a belt would most likely need replacing. The “perfect day” was rounded out often by a tow home (thanks to a cracked fuel line or something similar). Then my dad would have a few cold ones back at camp to dull the pain of his own aches from a long day. Hard to believe those were the days I hoped I would someday recreate on my own!

Luckily for the kids growing up today, they will have a whole different set of expectations than what I expected out of that old TXL. A strong, reliable 599cc Liberty Cleanfire fuel-injected engine with electric start should delay that shoulder replacement for a few years,

## + Pluses

Standard tunnel, reliable engine, retro graphics, good value.

and the longevity of the engine should have you set up for a good while too. Based on our experience, you’ll appreciate the oil efficiencies of this engine (sensors adjust the engine’s oil consumption based on altitude and air temperature), but MPG numbers might leave you wanting a little more. Our last full-season test in 2013 showed just 11.7 MPG. There is no question about its throaty performance, though. We saw this engine pull 121.8 horses on the dyno last season.

The engine revs quickly and shoots out of the corners nicely. We’ve mentioned several times that we’d like to see all the Indy trail sleds with a 1.25-inch lugged track. Polaris accommodated us here with a 15x121x1.25-inch RipSaw II. It works well with the engine, and it brakes and accelerates better than the 1-inch Hacksaw track found on other Indy models.



While we seriously doubt you’ll want to be launching over any doubles or triples with this suspension, the FOX IFP shocks carried in the front and rear of the sled provide cushion for the average rider.

The Pro-Ride chassis is still plenty capable, and the light steering feel still has the Indy 600 SP Terrain Dominator LE holding firm as a dynamic groomed trail ride at a reasonable price.

## THERE'S A STORM BREWIN'

Haven’t we seen this before? Ski-Doo reintroduced the popular Blizzard name from the 1970s with its MXZ Blizzard back in 2007. Nearly a decade later, the Blizzard is revived one more time with the 2016 MXZ Blizzard.

Back in the ’70s, Blizzards were known for having top-of-the-line technology and performance as race sleds. The re-released Blizzards of ’07 set that same tone (the 800cc version earned *AmSnow*’s prestigious “Best Sled” award that year). This newest iteration of a classic continues to have Ski-Doo’s latest and greatest from its engineering department.

Buyers of the 2016 Blizzard get both the new 129-inch rMotion rear suspension and the Pilot TS adjustable carbide ski on the RAS 2 front end standard. It is often tough to get that amount of new stuff on an in-season sled, as the top upgrades are usually only available on spring-buy models (like the Ice Ripper XT track and Quick Adjust System for the 2016 Blizzard).

Our test riding crew was very impressed with the 129-inch rMotion. Sure, the ride is improved, but what hasn’t been talked about nearly enough is the improved performance and control that the longer length skid offers. The longer skid means more track meets the snow, which means better hookup off the line for you. It also means more braking ability, so you can charge hard into those tight trail corners.



## AmSnow side-by-side sled specs

SLED	2016 Arctic Cat ZR 6000 EI Tigre	2016 Polaris 600 Indy SP Terrain Dominator	2016 Ski-Doo MXZ Blizzard 600 E-TEC
ENGINE	599cc dual stage injection twin C-TEC2 2-stroke	599cc Liberty liquid twin Cleanfire 2-stroke	594cc liquid direct injection H.O. E-TEC w/ 3-D R.A.V.E.
HP	124.6*	121.8*	118.9*
DRIVE	TEAM Rapid Response primary, TEAM Rapid Reaction secondary	P-85 primary, TEAM LWT secondary	TRA III primary, QRS secondary
EXHAUST	APV with tuned pipe, pipe sensor and stainless steel muffler	SC VES, Single	Single tuned pipe, baffle muffler
SKI STANCE	42-43 in. adj.	42.5 in.	42.4 in.
FRONT SUS.	Arctic Race Suspension w/ sway bar w/ FOX 1.5 ZERO QS3 shocks (10 in. travel)	PRO-RIDE w/ FOX IFP shocks (9 in. travel)	RAS 2 w/ HPG Plus shocks (9 in. travel)
REAR SUS.	SLIDE-ACTION w/ tri-hub rear axle, coupling blocks, Torque-Sensing Link rear arm, adj. torsion springs w/ Arctic Cat Gas IFP center shock, FOX 2.0 ZERO QS3 rear shock (13.5 in. travel)	INDY w/ FOX IFP shocks (13.9 in. travel)	rMotion 129 w/ HPG Plus shocks (15.5 in. travel)
TRACK	15x129x1.25 RipSaw	15x121x1.25 RipSaw II	15x129x1.25 Ice Ripper XT
FUEL: TANK/OCT.	11.7 gal. / 91 octane	11.5 gal. / 91 octane	10.6 gal. / 91 octane
DRY WEIGHT	NA	449 lbs.	477 lbs.
PRICE	\$12,599 US / \$14,499 CA	\$9,999 US / \$11,199 CA	\$11,849 US / \$13,449 CA





**2016 Ski-Doo MXZ Blizzard 600 E-TEC** New tech includes Pilot TS adjustable skis for adapting to changing conditions, and 129-inch rMotion rear end.

Admittedly, the adjustable carbide Pilot TS skis look a bit on the gimmicky side. However, as we've noted in other comparos this season, that sentiment quickly fades away after a few miles. We monkeyed with this newest feature a lot on our rides. Our crew came away pleasantly surprised with the effectiveness of the adjustable carbide. We know it works, but questions still remain about how well it works in some specific difficult or quickly changing snow con-

ditions (slush, low snow trails, deeper fresh snow on the trail, frozen ruts, etc.). A full season of testing should give us a much clearer opinion on this one.

We've got zero complaints so far on the handling of this machine, as long as those adjustable skis are set properly. It can be easy to have one carbide out or in more than the other. The HPG Plus shocks, like the Polaris, are not giant mogul mashers, but the Blizzard is slightly more capa-

ble in the rough stuff than the Indy. These are more for following the groomer. The RAS 2 puts the Blizzard ahead of the Indy in the corners as well. Even with the added track length, the Blizzard rips through most trail twists.

The taller, flared windshield of the Blizzard may not look as sporty as the Indy or the El Tigre, but it provides excellent protection from the wind at trail speeds, which our test riders really enjoyed. And with the higher ratings from our test crew, you're probably expecting a higher price.

## **+ Pluses**

New Pilot TS skis, 129-in. rMotion suspension, taller windshield, E-TEC fuel/oil efficiency.

**STOP** *\*“Throttle Thumb”\**  
with the  
**“Throttle Gizmo”**


**\$29.95**  
plus S&H

\*Great for small hands  
\*Fits most sleds  
\*Easy to Install

Order online:  
[www.clydecanceride.com](http://www.clydecanceride.com)  
Clyde Can Ride Ent. LLC  
PO Box 298551  
Wasilla, AK 99629




**We Make Water Burn!™**




**PRE**treat your E10  
**PRE**vent water problems  
**PRE**serve your equipment




E10 fuel is usable in your tools & toys. It's water from contamination or condensation that causes problems. K100 Fuel Treatment prevents the problem by getting rid of the water. **Period.**



**800.530.6935**

Eliminating water in fuel systems since 1965 

\*Check dealer for availability or visit [k-100.com](http://k-100.com)

**K-100.COM**   



You'd be correct. The Blizzard checks in at \$1,850 more than the Indy.

### ONE CLASSY CAT

Since its resurgence in 2014 with the C-TEC2 600cc Cat-built 2-stroke, Arctic Cat's El Tigre has earned high grades from the *AmSnow* test riders. The lightweight ProCross chassis' performance and durability are well documented. The C-TEC2 engine is now used across nearly the entire Team Green lineup. And the El Tigre continues to have razor-blade precise handling on the trail.

The quick get-up-and-go ability of the El Tigre is a terrific trait for any trail sled. The nearly instant power delivery, combined with the light weight and easy handling, means that it's easy for riders to set up their turns and speed out of corners with plenty of pace. It's also proven to be very efficient, sipping oil at a barely noticeable pace. At the mileage rate of 14.8 MPG in our last C-TEC 2 fuel econo-

my test, you can go a lot of miles between stops if you so choose. Buyers of the new 2016 versions may see a boost in MPG and MPH, as Cat engineers have come up with a revised slotted piston design and a new engine map since that test that should increase both power and mileage.

Cat updated the shocks on the El Tigre for 2016 too by bringing in the new FOX 1.5 Zero QS3 front shocks. There's also a





## 2016 Arctic Cat 6000 El Tigre

"Simple" and "easy" come to mind when talking about amenities such as the FOX QS3 shocks and goggle storage on the Cat.

this group. The 12V accessory outlet is appreciated, and the 11-inch windscreen is sufficient enough.

El Tigre's storage is my favorite here by far! The low-profile rear tunnel pack is an excellent size for your needs, and the goggle holder is warmed by the engine. It's the perfect spot for quickly defrosting anything that gets iced over. But those perks come at an even higher price than the Ski-Doo or the Polaris. The Cat costs \$2,600 more than the Indy and \$750 more than the Blizzard.

### PHOTO FINISH

All three of these machines bring back legendary names that earned their reputation by dominating the trails. The sleds have never been better, and the competition never stronger. So which should be parked in front of your shack ready for your toddler's next selfie? It all depends on what type of buyer you are.

The dollar-conscious shopper might sway toward Polaris' Indy 600 SP Terrain Dominator LE based on price. Although this is very much a "get-what-you-pay-for" comparison, there are very few pure trail riders who wouldn't be satisfied with this sled. It handles well, the engine is strong, and the price is right for a really nice trail ride. It's a lot of bang for the least amount of bucks here.

Those wanting a little more efficiency and comfort from their ride to go along with the latest in techy gadgets will probably favor Ski-Doo's MXZ Blizzard. There are great performance characteristics and the next generation of the rMotion to go with those adjustable skis. It hangs on to its legendary race roots from years ago, but it now has a sporty, yet efficient E-TEC engine. This is an excellent all-around trail machine.

Those who want the most capable sled (in my eyes) are going to have to be willing to pay the most. The El Tigre was my favorite sled out of the three. I felt the engine was strongest and the suspension very well equipped for trail terrain. The comfort and fun factors were just a little higher for me on this sled. But, like I said up front, you get what you pay for. 🐼

### + Pluses

Quick adjust QS3 shocks, ample storage, great MPG's, sharp cornering, sharp look.

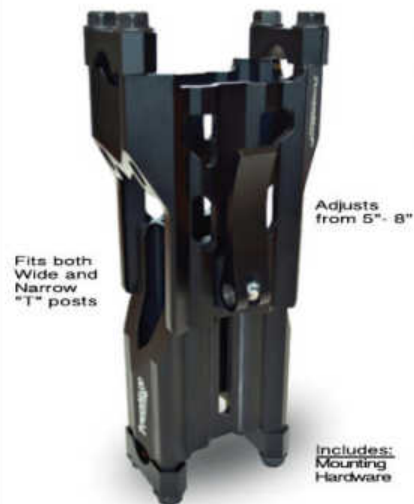
2.0 Zero QS3 for the rear track shock, and an Arctic Cat gas IFP center track shock. The new quick-adjusting shocks from FOX are easy to operate, and most importantly, easy to understand for the rider. They're capable, even in the softest setting, and we were very impressed with the range of adjustment offered by just three settings. Although the settings are basic to understand, there's nothing basic about the shock performance. They're downright awesome in almost any trail terrain.

It's a good move by three of the OEMs to add these shocks in the trail market, simply because it takes the intimidation factor out of adjusting your shocks. There are three very clearly marked settings to choose from. Riders only have to choose what they like the best. This should lead to happier riders, and happy riders are good for the whole industry!

The El Tigre also offers the best combination of goodies in

**POWERMADD**  
RIDE INNOVATION

## NEW Adjustable Pivot Riser



learn more @ [www.powermadd.com](http://www.powermadd.com)

## NEW Ski Doo Rev ESR Seat Riser Kit



**Benefits:**  
- Improved Rider Position  
- Reduces knee strain

**Includes:**  
- Performance Seat Cover  
- Custom Fit Foam Extension

Installation videos available

YouTube  
Broadcast Yourself™

651.462.8465





# POWER FUN AT THE BEACH!

BY MARK BONCHER

Photos by Ross Halvorson and JJ's Outlaw Photography

**2015**  
**AMSNOV &**  
**DYNOTECH**  
**NEW YORK**  
**SHOOTOUT**



**There is no other way to say it;** the start of this snowmobile season was more conducive to sun-tanning than snowmobiling. But this isn't the first time a season started off warm and ended cold and snowy!

However, this WAS the first year in over a decade that the New York Shootout returned to the Ole Barn in Inlet, N.Y. Once again, after a many-year hiatus, Van Auken's Inne became the *AmSnow/DynoTech* Headquarters, the place where we rested our heads during the Shootout and Snodeo weekend. It was great to make "new roots" at former Shootout locations all weekend.

Everyone talks about the "good old days," of the 1990s as being great times in the snowmobile industry as far as SNOW goes ... boy, how quickly we forget! In our special Vintage section of this issue (p. 30) is an excerpt from an article on the 1991 New York Shootout, and guess what? No snow in 1991, either!



**MOTHER NATURE CAN'T STOP OUR GOOD TIME!** The weather was great for spectators at the Ole Barn in Inlet, N.Y., but warm temps were not as fantastic for the sled speeds. But that's ok; everyone had the same battles to fight at this year's New York Shootout. Showcased stock sleds included Arctic Cat's ZR 8000 Sno Pro, ZR 6000 LXR and El Tigre 9000; Ski-Doo's MXZ 800; Polaris' Rush 600 Pro-S and 800 Switchback Pro-S; Yamaha's Viper LTX and Viper Turbo; and more. Mack Studs provided all the traction products for the stockers, DynoTech garnered all the stats on the dyno numbers, and fun was had by everyone. Local test rider Jason Owens even said he grew his beard all week for this event! Check out all the info and camaraderie here.

# STOCK SLEDS

## 120 HP CLASS

Our first real look at the performance of this year's crop of production trail sleds was surprising to say the least. Granted, we were running these box-stockers straight out of the crate and onto grass, sand and dirt this year, so things will certainly change once we get on the snow. The sleds we tested included the Arctic Cat ZR 6000 LXR 129 and the Yamaha SR Viper L-TX, both provided by D&D Powersports; the Polaris 600 Rush Pro-S provided by Sports Unlimited; and the Ski-Doo MXZ TNT 600 E-TEC provided by CJ MotorSports. All were

running two studs per bar in the track per our specifications. All traction products were provided by Mack Studs ([www.mackstud.com](http://www.mackstud.com)).

On the acceleration course, the Ski-Doo TNT was the 120hp sled to beat! It had the quickest box stock 1000-foot elapsed time of 10.61 sec. and the fastest box stock speed of the 120hp class at 83.48mph. What was surprising was that, of our four 120hp class sleds, the E-TEC in the Ski-Doo ranked third in power after its time on the DynoTech Research dyno. DT owner and longtime Shootout coordinator Jim Czekala had the Ski-

Doo sled making just 121hp, while the Polaris made almost 3 more hp, and the Yamaha made 10 more ponies. We say this every year, but the Ski-Doo sleds take longer to pass their self-imposed break-in time, so this sled should be even faster after the break-in counter on the gauge cluster finally reads zero. It was surprising, though, that a smaller power-reading sled did the best in acceleration testing.

The second-fastest 120hp sled was the Cat ZR 6000, with a 1000-foot elapsed time of 10.66 seconds and a 1000-foot speed of 82.56 mph. Those are pretty close to the

### Stock 120+ HP 2-strokes

SLED	H.P	Torque (lbs./ft.)
Arctic Cat ZR 6000 LXR	119.3	78.4
Polaris Rush 600 Pro-S	123.8	79.4
Ski-Doo MXZ TNT 600 E-TEC	121.0	81.4
Yamaha Viper LTX	<b>131.1</b>	<b>83.6</b>

### Stock 150+ HP 2-strokes

Arctic Cat ZR 8000 SP	151.0	99.8
Polaris 800 Switchback Pro-S	152.5	99.1
Ski-Doo MXZ 800 E-TEC	<b>158.3</b>	<b>103.8</b>

### Stock Turbo 4-strokes

Arctic Cat El Tigre 9000	<b>172.2</b>	<b>118.8</b>
Yamaha Viper Turbo	168.8	99.3



**POLARIS PULLING POWER** The 800 Switchback had the fastest top speed of the 150 hp sleds and the Polaris' certainly were the best appearing!

same times and speeds that the Ski-Doo produced, and the two sleds are both light and very well matched. At last year's New York Shootout, the Cat 6000 and the Ski-Doo 600 actually had the exact same top speed! After a couple years of testing these sleds side by side, we can now safely say that their performance out of the box is the most similar of any of the 120hp sleds.

The third- and fourth-place sleds in the 120hp class were the Yamaha Viper and the Polaris 600, respectively. However, the holeshot elapsed through 60 feet belonged to the Polaris, which definitely

jumped off the line best in its two acceleration run attempts. The Yamaha also tied the Cat for the best elapsed times at the 330- and 500-foot lengths, so it was close in the running.

For all the stock sleds, we gave the machines two runs in the box stock class. Then the dealers were given just an hour to make clutching changes and tune stock setups before they making another two runs in a "dealer-improved" class.

Unfortunately, the weather was so warm that the track never "tightened up" throughout the day. As more sleds drove down it, the speeds went down and the elapsed times



#### POWER DOWN LOW

Yamaha's Vipers were torque monsters off the starting line and had the best average elapsed time, but the smooth Ski-Doo 600 was really the star of the show this year with the best top speed and E.T.

went up. This was fairly obvious in the 120hp class, but even more so in the 150hp or 800cc class and turbos. The top average 1000-foot elapsed time after factoring the dealer prep runs was the Yamaha at 10.67 seconds, and the top average 1000-foot speed after factoring in the dealer prep runs was just 81.63 mph. So, as you can see, the dealer prep runs actually brought the averages down. That is what hap-

pens sometimes when you don't have snow!

### 150 HP CLASS

In the 800cc or 150+ horsepower class, we tested the Arctic Cat ZR 8000 Sno Pro 129 provided by D&D, the Polaris 800 Switchback Pro-S provided by Sports Unlimited, and the Ski-Doo MXZ TNT 800 provided by CJ Motor-Sports. Again, the big winner was Ski-Doo, but this time it

## Mack Studs give good grip



**Being a Midwest guy,** with seemingly no accent, I love accents! The first time I talked to Jim Salerno of Mack Studs over the phone, I automatically liked the guy and his cool New Hampshire accent. How can you not like someone who sounds like all the happy restaurant owners in any mob movie ever made? He may as well have said, "Come on in, make yourself comfortable and let me take care of you. Can I get you the best studs to come out of New Hampshire?"

Anyway, Mack Studs was the Official Traction Sponsor of the New York Shootout. The company has been making quality traction products for almost 20 years. We've tested these studs, and I actually have family members with the

same original set on their sleds from almost 10 years ago. Yes, the quality, durability and wear are that good on the N-Vader Mega Studs, Mega Studs and Standard Studs from Mack Studs.

I recently talked with Jim at the Shootout and at Snodeo in Old Forge, and he said many of his customers literally have a hard time wearing out their product. "Mark, seriously, if I were a better businessman, I would make my studs wear out quicker," Jim said to me. But that is not the kind of company these guys are, nor the type of person Jim is.

Mack Studs makes traction for both single and 2-ply tracks, as well as trail and ice racing studs. They have a choice of square,

circle, double, and oversized backers, plus all the support nuts, washers, drill bits, track templates, and more. This all-American company even offers the choice of single or dual carbides. Mack Studs has all the stuff the big companies have.



At the Shootout, all the 120 horsepower stock trail sleds that American Snowmobiler and DynoTech tested and then ran down the strip were equipped with two studs per bar. The 150+ horsepower sleds and the Turbo stock sleds all had three studs per bar. Depending on whether the sled was a 121-, 129-, or 137-inch long sled, the overall stud counts on each sled were different, but the studs per lug stayed the same. **More Info:** [www.mackstud.com](http://www.mackstud.com)



**MORE DOSES OF YELLOW** Not only did Ski-Doo handle business on the 120hp side of the coin, but the 800 Ski-Doo had the best stock E.T., average mph, and average E.T. The MXZ's were the sleds to catch!

was less surprising.

At DynoTech's testing facility, the Ski-Doo was the big power machine in the 150+ hp class, garnering 158.3 horses. The Polaris Rush was a solid No. 2 at 152.5 ponies, which no doubt will make the Polaris faithful happy, as in years past the motor has not seen quite the power on the dyno that we all would have liked. However, you never "ride on a dyno," so the real proof comes on the trail. Finally, the Cat ZR 8000

registered 151.0 horsepower, which is a little down from years past but still plenty strong. Different sleds and different days always produce slight changes in power output, but DynoTech does the best job in the industry of recreating consistent dyno pulls.

After seeing the power numbers, it was no surprise to see the Ski-Doo be the quickest sled down the track. The E-TEC 800 went 1000 feet and in just 9.93 seconds. The

Polaris 800 from Sports Unlimited was fastest on top end, going 89.28 mph. After the dealer prep runs were averaged, the Ski-Doo 800 was still ahead with an average E.T. of just 9.89 seconds and an average top speed in 1000-feet of 89.45 mph.

The Arctic Cat ZR 8000 came in second in E.T. in the box stock run in 9.99 seconds and second in the average E.T. as well. The Polaris, which garnered the most on the dyno, was hot on the heels of the Ski-Doo and the Cat was too. The outcome was slightly opposite from last year, when Polaris and Arctic Cat took home the majority of awards.

## TURBO SLEDS

Like last year, D&D brought out both a new Cat El Tigre ZR 9000 129 (with the Suzuki turbo) and the new Yamaha Viper LT-X (with the Yamaha-approved low-elevation turbo kit from MPI attached). The Cat seemed the obvious favorite after pulling 172.2hp on the dyno versus just 168.8hp for the Yamaha. On the track, it was not much different.

## Fastest of the fast

### STOCK 120 HP CLASS

#### Fastest 1000-foot Top

**Speed:** Ski-Doo MXZ TNT 600 from CJ MotorSports, 83.48 mph

#### Quickest 1000-foot ET:

Ski-Doo MXZ TNT 600 from CJ MotorSports, 10.61 sec

#### Best Avg. Mph:

Ski-Doo MXZ TNT 600 from CJ MotorSports, 81.63 mph

#### Best Avg. ET:

Yamaha Viper LTX from D&D Powersports, 10.67 sec

### STOCK 150 HP CLASS

#### Fastest 1000-foot Top

**Speed:** Polaris 800 Switchback from Sports Unlimited, 89.28 mph

#### Quickest 1000-foot ET:

Ski-Doo MXZx 800 from CJ MotorSports, 9.93 sec

#### Best Avg. Mph:

Ski-Doo MXZx 800 from CJ MotorSports, 89.45 mph

#### Best Avg. ET:

Ski-Doo MXZx 800 from CJ MotorSports, 9.989 sec

### STOCK TURBO CLASS

#### Fastest 1000-foot Top

**Speed:** Arctic Cat El Tigre 9000 from D&D Powersports, 91.64 mph

#### Quickest 1000-foot ET:

Arctic Cat El Tigre 9000 from D&D Powersports, 9.91 sec

#### Best Avg. Mph:

Arctic Cat El Tigre 9000 from D&D Powersports, 88.03 mph

#### Best Avg. ET:

Arctic Cat El Tigre 9000 from D&D Powersports, 10.28 sec

**NOTE:** The snowmobiles run at this year's Shootout arrived at DynoTech Research's dyno testing facility straight out of the crate. It's important to remember that these sleds have also NOT been through any break-in periods. Tune in to our Real World Shootout coverage next issue to see acceleration, wet weight, and MPG data from all the OEMs done AFTER break-in periods have elapsed.

Stock 120+ HP 2-stroke Class Acceleration							
SLED	1,000 ft. Speed (mph)	1,000 ft. (sec.)	660 ft. (mph)	660 ft. (sec.)	500 ft. (mph)	330 ft. (sec.)	60 ft. (sec.)
Arctic Cat ZR 6000 LXR	82.56	10.66	82.27	7.82	74.63	<b>4.79</b>	1.64
Polaris Rush 600 Pro-S	77.58	10.94	78.53	7.94	71.88	4.81	<b>1.61</b>
Ski-Doo MXZ TNT 600 E-TEC	<b>83.48</b>	<b>10.61</b>	<b>83.49</b>	<b>7.79</b>	<b>75.63</b>	4.81	1.63
Yamaha Viper LTX	80.35	10.71	80.93	7.83	74.13	<b>4.79</b>	1.66
Stock 150+ HP 2-stroke Class Acceleration							
Arctic Cat ZR 8000 SP	87.54	9.99	89.11	7.39	79.22	<b>4.57</b>	<b>1.56</b>
Polaris 800 Switchback Pro-S	<b>89.28</b>	10.12	87.89	7.45	79.09	4.66	1.57
Ski-Doo MXZx 800 E-TEC	89.11	<b>9.93</b>	<b>90.18</b>	<b>7.35</b>	<b>80.93</b>	4.58	1.58
Stock Turbo 4-Stroke Class Acceleration							
Arctic Cat El Tigre 9000	<b>91.64</b>	<b>9.91</b>	<b>91.84</b>	<b>7.4</b>	<b>82.87</b>	<b>4.69</b>	<b>1.72</b>
Yamaha Viper Turbo*	87.37	10.32	87.38	7.65	79.36	4.82	1.8



**ON THE WEB** // More Sled Tests at  
[www.AmSnow.com/sledtests](http://www.AmSnow.com/sledtests)



**TURBO TAIL** We saw the Cat turn its tail to us and run, in a good way! It was the fastest stocker.

The Cat had the highest box stock run of the day with a 91.64 top speed in 1000 feet and an elapsed time of just 9.91 seconds. The average E.T. (10.28 seconds) and average speed (88.03 mph) also were best for the Cat 9000. These drops in speeds and times REALLY show how the track started to slow as the day went on.

*\* The boys at D&D found a crimped boost line on the Yamaha after the last run. They weren't really sure when it happened, so in reality, none of the Yamaha Turbo runs should truly be counted, if we are keeping everything fair. Since we can't really know when or where the crimped line happened, we are putting and asterisk on all these numbers so people can read this here and know the whole story.*

# MOD SLEDS

**There may have been a shortage of snow,** but there was certainly no shortage of showcased modified snowmobile power at the track. Heavy hitters from across the snowmobile performance parts side of the business showed off their new parts on sleds they built.

Without snow, the biggest challenge with running high-revving modified sleds was keeping them cool. Leaf blowers were out in full force, blowing on exhausts, radiators and clutches to try and bring machines back to optimal operating temps after each run.

Many of the turbo sleds are dependent on more seasonal, cooler temps to help them run at peak capabilities. In the cold, speeds in the 130-mph range are what we're more accustomed to seeing. It is a lot different when air intakes are sucking in 10-degree air rather than the 50 degrees Mother Nature provided us.

## TRAIL MODS

The Trail Class featured a heads-up style with driver Matt Luke piloting owner Mike Hills' 2016 Arctic Cat ZR 8000 running a Bikeman Performance Stage 2 bolt-on kit, and BCM Performance clutching and tuning. The other sleds were Rich Daly's

Cat XF 8000 and Ski-Doo MXZ X-RS 800R with Dyno Port mods.

In the end, Luke rode Hills' Bikeman/BCM ZR 8000 past the 660-foot marker at 90.18 mph in 7.15 seconds, and Daly posted 89.11 mph in 7.5 seconds with his XF. Track conditions were a hot topic of debate, and Daly elected to run his sleds without studs.

The first biggest, baddest sled in the Trail Class came from the Bikeman/BCM 2014 ZR 9000 turbo sled that finally broke through with our first 100+ mph pass of the day. With Luke again behind the bars, the sled sporting Bikeman's Stage 3 pump gas ECU tune with launch con-

trol, clutch setup and 3-inch Big Mo exhaust tuned by BCM tore through the 660 line in 6.46 seconds at 102.98 mph. Boyd McGarry and BCM certainly have the Bikeman sleds set-up for performance, and this is not the first time



**BCM PERFORMANCE** headed up the effort on this 2016 Arctic Cat ZR 8000 Limited.

## Performance parts lists

### TRAIL MOD CLASS – 660 FT

#### Bikeman Performance

920 Pine St., St. Croix Falls, WI, 54024, 715-483-3003, [www.bikemanperformance.com](http://www.bikemanperformance.com)

#### 2014 Arctic Cat ZR 9000

(Sponsors: Bikeman, BCM, Curve Industries; Owner: Vince Musilino; Driver: Matt Luke)

**Mods:** Bikeman 3 stage pump gas ECU tune (220-240-260) w/ launch control, Bikeman 3-in. 'Big Mo' exhaust, head studs, Bikeman Stage 2 clutching, BCM tuning.

**Best Acceleration Run:** 6.46 sec. ET, 102.98 mph

#### BCM Performance

165 E Sullivanville Rd, Horseheads, NY, 14845, 607-738-5989, [www.bcmperf.com](http://www.bcmperf.com)

#### 2016 Arctic Cat ZR 8000 Limited

(Sponsors: BCM, Bikeman, Boyesen, Curve, Fox's Discount Parts; Owner: Mike Hills; Driver: Matt Luke)

**Mods:** Bikeman Stage 2 Bolt On kit (includes pipe,

Y-pipe, PC 5 controller, Boyesen Rage Cage reeds, stage 2 clutch kit), BCM tuning, 158 Woody's Trigger trail studs.

**Best Acceleration Run:** 7.15 sec. ET, 90.18 mph

#### Dyno Port

1912 Scipio-Fleming Townline Rd., Union Springs, NY, 13160, 315-255-3665, [www.dynoport.com](http://www.dynoport.com)

#### 2014 Arctic Cat XF 8000 LXR

(Sponsors: Dyno Port, Thundershift; Owner/Driver: Rich Daly)

**Mods:** Dyno Port Y-pipe, black pipe, Thundershift adjustable primary weights

**Best Acceleration Run:** 7.50 sec. ET, 89.11 mph

#### 2014 Ski-Doo MX Z XRS 800

(Sponsors: Dynoport, Snowstuds; Owner: John Dyn; Driver: Rich Daly)

**Mods:** Dyno Port Y-pipe, black pipe, Snowstuds 96 Ct.

**Best Acceleration Run:** 7.77 sec. ET, 86.54 mph

### LAKE RACER CLASS – 500 FEET

#### Bikeman Performance

920 Pine St., St. Croix Falls, WI, 54024, 715-483-3003, [www.bikemanperformance.com](http://www.bikemanperformance.com)

#### 2014 Arctic Cat XF 9000

(Sponsors: Bikeman, BCM, Curve, Boyesen, South Bay Injectors, Kenny D Racing; Owner: Bill 'Skip' Stoddard; Driver: Matt Luke)

**Mods:** Bikeman 3 stage ECU race tuner (220-260-300+), Bikeman custom exhaust, BCM custom clutching and tuning.

**Best Acceleration Run:** 4.84 sec. ET, 101.12 mph

#### BCM Performance

165 E Sullivanville Rd, Horseheads, NY, 14845, 607-738-5989, [www.bcmperf.com](http://www.bcmperf.com)

#### 2013 Arctic Cat XF 1100



**TRAIL TERRORS** Vince Musilino's 2014 Arctic Cat ZR 9000 (left) took top E.T. and speed honors in the Mod Trail class, covering 660 feet in 6.46 seconds at 102.98 mph. Dyno Port's Ski-Doo (right) was driven by Rich Daly.

this year that McGarry has had super-fast sleds at an AmSnow event. Check out the December 2015 issue, and you'll find his record-setting sled that Kyle Shilts drove at the Super Sled Shootout in Martin, Mich.

We know stock 800s are capable of big speeds in the quarter mile, and even 1,000 feet if conditions are nearly perfect. The fact that Mike Hills' Bikeman/BCM Cat 800 was able to better the stock Cat 800 run by almost a quarter of a second in 660 feet on a far more deteriorated track (they ran after all the stock passes) says a lot about the quality of products that Bikeman and other performance companies are offering



**SHOOTOUT NEWBIES**  
**Sherlock Performance** showed some nice tuning abilities in this El Tigre 9000, running 500 feet in 5.11 sec. at 101.35 mph.

to consumers.

And looking at the charts of the Bikeman/BCM Cat Turbo sleds compared to the stock run of the Cat Turbo, you can see an even larger gap developing. With the Bikeman Performance parts and the BCM tuning, the mod sled covered 660 feet nearly a full

second quicker and 11 mph faster than the stock sled did. Showcasing performance gains like this is a big reason we do the New York Shootout.

## LAKE RACERS

The boys came to play for the Lake Racer class. This was entertaining for the crowd and

again a great chance to see these sleds. Between the four performance shops represented by the six sleds, we saw all sorts of variation between stock and aftermarket parts employed for high-horse capabilities. These machinery marvels are the true showstoppers of the day, and the majority of

## Shootout dealer info

A HUGE thanks to our participating dealers at the 2015 New York Shootout!

**Arctic Cat / Yamaha**  
**D&D Powersports**  
4527 State Route 410  
Lowville, NY 13367  
315-376-2111  
DDracing.com

**Polaris**  
**Sports Unlimited**  
5654 Horatio St.  
Utica, NY 13502  
315-733-3823  
Sportsunlimitedny.com

**Ski-Doo**  
**CJ MotorSports**  
8711 Industrial Drive  
Boonville, NY 13309  
315-942-4756  
Cjmotorsportsonline.com

(Sponsors: Bikeman, BCM, Curve, Boyesen, South Bay Injectors, Kenny D Racing, Chandler McGarry; Owner: Boyd McGarry; Driver: Matt Luke)

**Mods:** BCM custom built race engine w/ C&C ported heads, PTE turbo, Bikeman intercooler, BCM Vi-PEC tuning, BCM custom clutching.

**Best Acceleration Run:** 4.34 sec. ET, 117.81 mph

### D&D Powersports

4527 State Route 410, Lowville, NY, 13367,  
315-376-8013, [www.ddracing.com](http://www.ddracing.com)

#### 2016 Arctic Cat M 8000

(Sponsors: Arctic Cat, Dynojet, Camoso, Stud Boy, Fly Racing, Curve, R12 Designs, V-Force Reeds; Owner: Chuck Jenkins; Driver: Dylan Roes)

**Mods:** D&D Riot porting, D&D Y-pipe, D&D XPR silencer, D&D LTS Riot Head, D&D 2016 Tmax Clutch Kit, Bullseye air intakes, PC 5 CDI, fuel blend (1 gal. C12 : 3 gal. 91 pump).

**Best Acceleration Run:** 5.42 sec. ET, 90.18 mph

### D&D Powersports

4527 State Route 410, Lowville, NY, 13367,  
315-376-8013, [www.ddracing.com](http://www.ddracing.com)

#### 2016 Arctic Cat XF 9000 High Country

(Sponsors: Arctic Cat, Clark Racing, Stud boy, Camso, Fly Racing, R12 Designs, Arctic Insider, Curve; Owner: Nate Clark/Clark Racing; Driver: Dylan Roes)

**Mods:** D&D head porting, Stage 1 cams, Carollo rods, Valve Train kit, D&D stainless drage 3-in. pipe, D&D injector mods, block deck and piston mods, Vi-PEC ECU, Powermist fuel.

**Best Acceleration Run:** 4.75 sec. ET, 107.14 mph

### Kurtz Performance

791 Fleetwood Lyons Rd., Fleetwood, PA, 19522,  
610- 944-7660, <http://facebook.com/kurtzperformance>

#### 2013 Arctic Cat XF 1100

(Sponsors: Kurtz Performance, Boyesen, Woody's; Owner: Mike Fratrick; Driver: Mike Fratrick/Jerry Kinder)

**Mods:** Kibblewhite Race valve train, Hypersports head

studs, Lake racer piston kit, balanced and assembled by Priceless Performance, STM clutches, Mod stock turbo kit with Boondocker controller, Pro Logger boost controller, fuel cell w/ pump, Bikeman charge tube kit, Dayco XTX belt, Whal Racing billet throttle block, Proline KOT 159-in. skid w/ grass wheel kit and brackets, Camso 159x15x2-in. track (cut to 1.25-in. lugs), Woody's 1.860 Chisels (252 count) and runners, SPG (Skin2) seat, D&D race hood, TNT Vinyl Designs wrap, Ballistic EVO 3 battery, RSI bar pad.

**Best Acceleration Run:** 5.04 sec. ET, 98.69 mph

### Sherlock Performance

Central Square, N.Y.

#### 2015 Arctic Cat El Tigre 9000

(Sponsors: Sherlock Performance; Owner: Dave Dillenbeck; Driver: Jeff Sherlock)

**Mods:** EVO turbo, Dynamo Jim ECU flash, Sherlock Performance tuning.

**Best Acceleration Run:** 5.11 sec. ET, 101.35 mph



**TUNING DISPLAY** BCM Performance showed its sled tuning prowess with superb clutching on this 2014 Arctic Cat turbo.



**BURNING DOWN THE TRACK!** Matt Luke took his turn aboard Boyd McGarry's 2013 Arctic Cat turbo, bringing home the day's super fast pass at 117.81 mph.

## The difference snow makes

» Compare these stock sled times from last years' New York Shootout (when we had good snow) to this year's chart of times and speeds. Speeds were on average 7-10 mph slower this year (without snow) for all the stock sleds. However, elapsed times were markedly better this year for all the sleds in the 120hp class and the majority of sleds in the 150+ class sleds.

### 1000-FEET WITH SNOW IN 2014

Arctic Cat XF 6000 Sno Pro - 89.29 mph, 11.25 sec  
 Polaris 600 Switchback Pro-S - 85.71 mph, 11.062 sec  
 Ski-Doo MXZ TNT 600 E-TEC - 90.54 mpg, 11.238 sec  
 Yamaha SR Viper R-TX - 91.65 mph, 10.488 sec  
 Arctic Cat ZR 8000 Sno Pro - 94.94 mph, 10.067 sec  
 Polaris 800 Switchback Pro-S - 100.45 mph, 9.821 sec  
 Ski-Doo MXZ TNT 800 E-TEC - 97.61 mph, 10.148 sec  
 Arctic Cat ZR 9000 - 99.34 mph, 9.643 sec  
 Yamaha SR Viper Turbo - 103.21 mph, 9.776 sec



**KURTZ PERFORMANCE** ran its East Coast hill dragger on the flat track and showed what a good hookup looks like: 60 feet in 1.39 seconds!

the attendees stayed for the fastest action on the track. The distance for Lake Racers was shortened to 500 feet, as track conditions and temperatures did not warrant anything more.

Bikeman and BCM Performance were at it again with a pair of Arctic Cat turbo sleds. Bill "Skip" Stoddard's 2014 Arctic Cat XF 1100 improved stock turbo sported a Bikeman 3 stage ECU tuner (220-260-300+ hp) and custom exhaust, along with BCM's custom clutching. It cruised through 500 feet in 4.84 seconds at 101.12 mph to set the early pace.

The D&D Powersports crew set what many thought would be the day's best MPH with track conditions waning when Clark Racing's 2016 Cat XF 9000 High Country raised the bar to 107.14 mph, covering 500 feet in 4.75 seconds. This "improved stock turbo" sled used the stock factory turbo with a number of engine mods and a Vi-PEC ECU.

Two newcomers to the shootout in Kurtz Performance and Sherlock Performance gave it a good go as well. The Kurtz Performance Arctic Cat XF 1100 owned by Mike Fratrik

shot out of the blocks, covering the first 60 feet in 1.39 seconds. But this sled is built for hill drags, and the 159-inch track with 252 Woody's Chisels was just too much friction to overcome on a soft track. We won't be surprised if we see a few strong showings from the Kurtz Performance team once hill drags get underway.

The Sherlock Performance Arctic Cat showed plenty of promise. This is a full weight sled with stock clutches, EVO Turbo and Dynamo Jim ECU flash. It covered 500 feet in 5.11 seconds at 101.35 mph.

But it was another Bikeman/BCM Arctic Cat that ruled the Lake Racer class. Boyd McGarry's custom-built race engine is every bit of a true modified Lake Race machine. It claims 500+ hp, and every one of them seemed to be on display on the dirt track as it angrily blasted through 500 feet in 4.34 seconds at 117.81 mph.

Snowless conditions aren't an ideal day for any of the sleds. Even with winter's poor start, one thing is certain: anticipation for sled season is heating up ... if only the temps would cool down! 🐻



**DYLAN ROES** piloted Clark Racing's D&D improved stock turbo sled to a 4.75-second elapsed time in 500 feet at 107.14 mph. D&D mods on this sled included porting, pipe and more.



**'M' NOT JUST FOR MOUNTAINS!** Showing up with a mountain sled on the lake will surely turn a few heads in your riding crew, but we'd classify this Lake Racer setup from D&D Powersports as more of a neck snapper than a head turner.

## Where the party is!

» If you haven't heard already, the place to be after the AmSnow/DynoTech Shootout and Snodeo festivities is the newly revamped Van Auken's Inne. Owner Jim Moore and his son Andrew have made this into a new powersports lover's dream destination. With over a dozen sleds available to rent and a performance shop soon to be on the premises, this is a great place for riders to stay. Nice clean rooms, a historical atmosphere upstairs, and a big party downstairs make it the place to be for this (and probably every other) weekend you spend in Old Forge. AmSnow folks and DynoTech's Jim Czekala can remember fixing sleds in the downstairs cellar, which Jim Moore has turned into the coolest bar in town. The new Wakeley's "speakeasy" has roots back to the days of prohibition, when tiny getaways happened in the old basement. By the way, Jim and Andrew are some of the best musicians in the Adirondacks, so there is ALWAYS live music on the weekends. Check it all out at [www.vanaukensinne.com](http://www.vanaukensinne.com).



## America's best TrackSki boots...

**Protect carbides and floor**

Newest style plastic boots have high sides, lock-on nose and wide easy off straps for great holding power. Thicker, more durable UHMW plastic than others.

■ Black, ■ Blue, ■ Yellow, ■ Red and ■ Green from **\$149**

### More Tracks USA products

- Largest stocking Camso/Camoplast track dealer in USA
- Rail and tunnel extensions. Package prices
- Fly Race Apparel



10340 67th Avenue SE • Lake Lillian, MN 56253

**320.382.6128** info@tracksusa.com

**www.TracksUSA.com**

## CUSTOMER SERVICE CENTER

Manage your subscription online  
(Registration Required)

<http://subscribe.amsnow.com/help>

- Change Address or E-mail Address
- Report Damaged or Missing Issues
- Check Expiration of Subscription
- Subscribe
- Renew Subscription
- Pay Bill
- Check Payment Status
- Newsletter Management



For all of our publications!

**NEW** *ChromAlloy* **Made in USA**

**Titanium Bars**  
4130 Chromoly Bars

**SPG Risers**  
1", 2", 3", 4", & 6"

**2FIVE2 MonoBlock Riser**  
(Polaris Pro RMK/AXYS)

[www.skinzprotectivegear.com](http://www.skinzprotectivegear.com)

**SKINZ PROTECTIVE GEAR**

**KICK SOME ICE**

**WITH DURA FLEX**

REVERSE - COMPATIBLE  
U.S. PAT #7,918,298

**NOW WITH OUR EXCLUSIVE LIMITED LIFETIME WARRANTY**

ASK ABOUT OUR AWESOME NEW SNOWBIKE SCRATCHERS!

**(208) 764-3380**

[WWW.BETWEENTHELINESDESIGNS.COM](http://WWW.BETWEENTHELINESDESIGNS.COM)

MADE IN AMERICA



POLARIS INDY 500 SP "FUELIE"



ARCTIC CAT WILDCAT 700 AWS



YAMAHA EXCITER II



ARCTIC CAT EXT SPECIAL 500

# FROM THE VAULT



**FEBRUARY 1992 COVER**  
Grass, dirt and rain even happened years ago at the New York Shootout.

**Open up the *AmSnow* Archive Vault** to two dozen model years ago! These iron horses blazed their way across a wet, rocky, mud track at *AmSnow*'s New York Shootout in Inlet, N.Y. No, the 'good old days' weren't always as snowy as we think!

It was Dec. 11, 1991 – Exactly 24 years to this year's 2015 New York Shootout, and both were held at the Ole Barn. In 1991, the "500 Class" consist-

ed of Arctic Cat's EXT Special, Bombardier's Ski-Doo Formula Plus, Polaris' Indy 500 SP "fuelie," and Yamaha's Exciter II. The big hot iron brought the new

Arctco Wildcat 700 AWS, the Ski-Doo Mach I, the Yamaha Vmax-4 and both the Indy 650 models: RXL "fuelie" and 650 with carbs.

By most standards (and state registration laws), a sled is considered "vintage" when it's 25 model years old. These old trail sleds will earn their vintage stripes with the soon-to-be released 2017 sleds. So get those old iron memories cranking as we look back at our showdown of the oldest of the "modern sleds."



YAMAHA VMAX-4

SKI-DOO FORMULA PLUS



SKI-DOO FORMULA MACH I



## 1991 NY Shootout featured nine hot sleds, now almost officially old-school vintage

BY ROSS HALVORSON (ORIGINAL ARTICLE AND PHOTOS BY JERRY BASSETT)

### ★ Edited excerpts from Jan./Feb. 1992 issue of *American Snowmobiler*

Up first was the "500" class. Based on previous evaluations, we didn't expect a new outcome, but we were pleasantly surprised at how well balanced this group of machines was. Speeds were taken via radar this year at 750 feet.

Although you can't make any conclusions, we will still make a few "observations." First, we expected the EXT Special to do well. It proved a solid runner last year and didn't disappoint us this year. The Cat pulled a solid 71 miles per hour through the tough

course. The year before, a similar Cat managed 73 mph over the eighth mile (660 feet).

Second, the Indy 500 SP (fuel injected) and the new stock Formula Plus were a pleasant surprise. The Indy gives away 100cc in displacement to virtually all in the "500" class. For it to run 69 mph over the dirty 750 feet was as impressive as its 72 mph in the eighth last year.

Equally impressive was the new 580cc Plus. Last year's Plus X version hit 70 mph over the eighth. The X model is a performance-oriented setup versus the trail setup on the 580 Plus model.

This standard Plus turned in a 69 mph run over the rocky and dirty course. Perhaps a 1992 Plus X with the RAVE engine would run stronger, but what we saw from the smaller carbureted and non-RAVE standard Plus was pleasing to us trail riders. Ski-Doo had done nice things with this model and the Battle proved it.

Yamaha's Exciter showed a top end of 67 mph and a best ET of 9.933, just a titch shy of the Indy 500 SP.

### ★ The "Hot Sled" class

In the big bore class, Arctco vindicated our belief that the new

### LEGENDS IN WAITING

1992 was a year of firsts for many now-famous sled upgrades, such as the then-new Yamaha Vmax-4, Cat's lightweight AWS chassis, and EFI from Polaris. All these will be well sought after in the Vintage markets.



**ON THE WEB** // More Vintage Sleds at [www.AmSnow.com/vintage](http://www.AmSnow.com/vintage)

Wildcat 700 AWS is, dollar-for-dollar, the best performance buy this year. Last year, the old chassis 700 clipped through the eighth at 81 mph. This year, the lighter and more efficient AWS model registered a stout 84 mph at the end of 750 feet!

Going into this year's "Battle of Old Forge," we had no basis to judge the two most talked about sleds of the year – Cat's new Wildcat and Yamaha's new Vmax-4. We've ridden both, but not side-by-side. We had ridden our "Max" in northern Minnesota a couple of weeks before the "battle," but not against a new Cat. We knew the Max would be strong, but figured the Wildcat 700 AWS with its lighter chassis, new slide rail and suspension changes would be close. This was what we had come to New York to witness – Cat versus Yamaha! Unfortunately, we could only squeeze in a 750-foot-long track. We wanted an eighth and quarter mile. But, you work with what you've got.

When [driver] Zach Taylor put the Vmax-4 on the line, he watched the light turn green, slammed the throttle, and held on for 750 feet. The Yamaha took just over nine seconds to hit 81 mph.

Zach then boarded the Wildcat. He watched the light, mashed the gas and took just 8.620 seconds to reach 83 mph. The Cat was faster and quicker than anything else this year. On the second run, the Cat turned 81 mph in 8.705 seconds.

Rounding out the competition, the



**BY MOST STANDARDS  
A SNOWMOBILE IS  
CONSIDERED VINTAGE  
WHEN IT'S 25 MODEL  
YEARS OLD.**

Polaris RXL turned a best of 8.635 seconds and 78 mph. The Ski-Doo Mach I showed a top speed of 75 mph and best ET of 9.185 seconds. The triple-carbed Indy 650 turned in an ET of 9.195 and top end of 74 mph.

#### ★ "Dealer prep" pays off

In round two (after dealer prep), all but the Polaris RXL bettered mph and ETs. The carbureted Indy 650 after tinkering ran virtually the same as the fuel-injected RXL. In its way, this also showed what Polaris claimed about EFI is true. EFI automatically adjusts itself to run the engine at peak performance without any work to carburetion. In its very first run, the RXL established the standard for the two Polaris triples. Then it was up to the local Polaris dealers on hand to get the triple-carbed Indy 650 up to the same performance level. They did. The Indy 650

had a best time of 8.862 [seconds] and top end of 78 mph, mirroring the best RXL performance.

The biggest mph jump came from the Smith Marine Ski-Doo. In basic factory setup, the Mach I turned a 9.185 and 75 miles per hour. With a little dealer tweaking, the same Mach I came in with a better ET (8.726 seconds) and a 5 mph gain in top end (80 mph). Comparing out-of-the-box factory setup to dealer tweaking, the Mach lowered its ET by nearly 10% and gained just over 11% in top end mph.

The pace-setting Wildcat showed a 3.7% increase in top end, going from 81 and 83 mph (first and second stock runs) to 84 and 83 mph after dealer tweaking. The overall best ET was lowered to 8.490 seconds with the changes to the Cat.

The Vmax-4 gained a mph after tweaking, moving its best top end from 81 to 82 mph over the short runway. The best

### 500 CLASS - 750 Ft.

SLED	Arctic Cat EXT Special	Polaris Indy 500 SP	Ski-Doo Formula Plus	Yamaha Exciter II
ENGINE	550cc Suzuki liquid twin w/ VM38 Mikuni carbs	488cc Fuji-Polaris liquid twin w/ EFI	581cc Rotax liquid twin w/ VM34 Mikuni carbs	569cc Yamaha liquid twin w/ VM38 Mikuni carbs
HP	82 (OEM est.)	NA	NA	NA
BEST MPH	71	69	69	67
BEST ET (SEC.)	9.419	9.932	9.744	9.933

### HOT SLED CLASS - 750 Ft.

SLED	Arctic Cat Wildcat 700 AWS	Polaris Indy RXL	Polaris Indy 650	Ski-Doo Formula Mach I	Yamaha Vmax-4
ENGINE	700cc Suzuki liquid twin w/ VM40 Mikuni carbs	648cc Fuji-Polaris liquid triple w/ EFI	648cc Fuji-Polaris liquid triple w/ VM38 Mikuni carbs	617cc Rotax liquid twin w/ VM40 Mikuni carbs	743cc Yamaha liquid inline 4 w/ TM33 Mikuni flat slide carbs
HP (C&H DYNO)	118	102	98	109	128
BEST MPH	84	78	78	80	82
BEST ET (SEC.)	8.490	8.635	8.862	8.726	8.610



“official” ET was 9.004 seconds, but we saw a lower ET at 8.610. That was when we let the Yamaha have a third “off the record” run with some different clutches that Bruce Schrader at Bender Racing wanted to try. The ET came down, still above the Cat, but the top speed stayed at 82 mph.

With the lowest ET being the winner and top speed basically for show, this was an interesting battle. It was proven that a good dealer is worth a few extra bucks in prep charges!

#### ★ Parting thoughts from 1991

As Bob Gross, Arctic Cat’s New York district sales rep, said in 1991, “Fortunately, we don’t race on a dyno.” Because the Wildcat actually pulled less HP on the Dynotech dyno than the V-max 4.

So, what else did we learn? We saw that new suspension rails and improved clutching that Arctco engineers worked on into early summer make a difference. This Wildcat 700 AWS ran about the same as last year’s model in slightly better conditions. The new chassis and suspension make the same named sled for 1992 a totally new breed of fast Cat.

As for Yamaha, nothing we saw changes our mind about the Vmax-4. It’s still fast. It’s still plush. It’s still the news story for 1992 when it comes to high tech. While we may report on power and speed in this article, we know that any of the sleds tested here will make a pleasant touring machine. When those sleds meet out on the lake, whether it’s Big Moose in New York or Big Sandy in Minnesota, the throttles will be hit hard, and dealer setup will make all the difference in bragging rights around the bar. 🐾

# MONDAY MORNING!

If you have to be somewhere Monday morning shouldn't you be thinking about a ...



# TEKVEST

705-488-2929 EST  
info@tekrider.com

TEKRIDER.COM

1100 TURBO  
\$379

Trail friendly while building boost much quicker.  
Resulting in a real quick throttle response!

www.ddracing.com - (315)-376-8013  
@ddracingllc #ddpower

# 260

HORSEPOWER



## THE NEW STANDARD FOR SHARP CARBIDE RUNNERS AND STUDS.

# BITEHARDER®

CARBIDE RUNNER AND STUD SHARPENING TOOLS

### CARBIDE RUNNER SHARPENING TOOL

#### ★ STANDARD SERIES

Designed to be used with a portable drill for sharpening convenience anywhere. Improve your control and handling with our AdvantEDGE™ Technology. Superior quality diamond media allows for 40+ sharpenings per tool (single runner count).



### CARBIDE RUNNER SHARPENING TOOL

#### ★ PRO SERIES

Uses the same AdvantEDGE™ Technology as our STD Series Tool, but are designed to be used in a controlled shop environment. Pro Series Tools operate at 10,000 RPM's using high speed pneumatic or electric style grinders. Superior quality diamond media allows for 200+ sharpenings per tool (single runner count).



### CARBIDE STUD SHARPENING TOOL

#### ★ PRO SERIES

Designed to sharpen your carbide studs without the need to remove them from your track. Superior quality diamond media allows for 750+ stud sharpenings per tool.



BITEHARDER.COM





# STRAY CATS

The 1982 Arctic Cat  
sleds that never were

STORY AND PHOTOS BY JOE RAINVILLE

**Arctic Cat's history as a snowmobile manufacturer goes back to the founding of the company in 1960 by Edgar Hetteen. Starting with the first 1962 model year "Polar"-branded machines, the company has manufactured snowmobiles almost continuously to this very day.**

Noticeable on the timeline posters from the mid-1980s are the two "gone fishing" model years of 1982-83. The early '80s recession and high interest rates were tough on the snowmobile market. The company, then called Arctic Enterprises, had an especially tough time. Cat seriously overproduced sleds for the 1980 model year and had to drop production to unsustainably low numbers for the '81 season, pushing the company

into bankruptcy in the spring of 1981. Only leftover '80 and '81 machines were sold for the winter of '82, with a liquidation sale later that summer.

The beauty of this story is the happy ending. The dedicated crew of former Arctic employees was able to scrape the remnants of the company back together, releasing new El Tigre and Panther models for 1984 under the new company banner of ARCTCO. And the rest is history, so they say.

**PIECE IT TOGETHER** (1) From the left is Tom Rowland's 1982 El Tigre, Cougar and Pantera prototypes. (2) This is one of five known '82 Puma prototypes with unique bodywork and a chaincase drivetrain. (3) The Cougar was expected to be a high volume seller with 500cc fan-cooled, dual carb performance, replacing the El Tigre 5000 in the lineup.

**WHAT MIGHT HAVE BEEN** (4) 1982 Jag and Puma prototypes with direct drive. (5) 1982 Cougar shown with oil injection. (6) The Jag was slated for direct drive. (7) The planned 1982 El Tigre showing off her 500cc of oil-injected, liquid-cooled muscle. (8) This prototype Team Arctic cross country racer was the first generation of the never-mass-produced El Tigre Sport with a lightweight LC 440, direct drive and IFS.

### ★ A question remains

But what about the planned 1982 models? You might assume that even though there was not a regular production run of 1982 models starting down the assembly line in the summer of 1981, there must have been prototypes ready to go ... and you would be correct. The last snowmobiles built by the former Arctic Enterprises were, in fact, the 1982 prototypes.

Arctic engineering was working to field an updated and expanded lineup for 1982. Some new names were to be introduced alongside some returning classics. Oil injection was spreading, as were innovations like direct drive and rear suspensions with longer travel. Most of the sleds were going to get updated bodywork and graphics.

Fortunately for history and vintage collectors, many 1982 prototypes were sold to the public during Cat's unfortunate liquidation. Even more surprising is the fairly high survival rate of the approximately 26 or so '82s known to have been built. For example, five Cougars are thought to have been built, but four of them are accounted for.

Collectors such as Tom Rowland, owner of Thomas Sno Sports in Ogilvie, Minn., have been pursuing these rare collectibles. He's built an impressive collection of most of the planned '82 machines. With the assistance of Tom's collec-

tion and a few others, we can paint a good picture of what Cat's 1982 line almost was.

At the top of the line, the El Tigre 6000 gained a sharp new hood design, and under it was to be an oil-injected 500cc liquid Suzuki twin. The 500cc Suzuki twin was never oil injected in production; even the 1984 leaf spring and 1985 AFS Tigers were pre-mix. The effective chassis, drivetrain, rubber track and suspension was planned to carry over from 1981 with a few cosmetic enhancements.

The newly named Cougar was slotted to replace the old 500cc free-air El Tigre 5000. By the early 1980s, the relatively loud air-cooled sleds had overpowered their simple, lightweight cooling method, and most air-cooled motors had become axial or flywheel fan-cooled.

The new 1982 Cougar featured a 59hp 500cc fan-cooled twin with dual carbs and oil injection. It had a rubber

track, with 5 inches of rear suspension travel. It was slated to have Cat's Hex drive clutch on a Sno Pro reverse cam, cast-aluminum secondary. The Cougar was expected to be a volume leader, a hope that was eventually realized by the very popular 1985-90 AFS Cougar. The bright, wide stripes

and "Cougar" graphics of the '82 prototype even made an appearance on the 1986 AFS Cougar's new hood that looked very similar to the 1982 El Tigre 6000 prototype.

### THE NEW 1982 COUGAR FEATURED A 59HP 500CC FAN-COOLED TWIN WITH DUAL CARBS AND OIL INJECTION.



The Panthera received new bodywork and an updated liquid-cooled 440cc motor to solidify its position as the top luxury Cat. Deep brown paint and stylish decals by Leon Raiter added a touch of class to these machines. The track length on the prototypes was 5 inches longer than the production '80-81 models, but it's not clear if that was to be the final specification for production.

The 1982 Panther prototype had some surprising features that never appeared on the '84 and older leaf spring sleds, including a liquid 440 twin and new unique hood also shared with the Panthera. It was also oil-injected with dual carbs. The Panther was a mainstay in Cat's lineup since its introduction in 1967, and it was the first 1984 model year Cat off the assembly line under ARCTCO. The '84 production model had far more in common with the 1981 Panther than with the 1982 prototypes, however.



### ★ New tech for '82

While these new and improved models had somewhat conventional drivetrain layouts, Cat was also ready to release two models with some state-of-the-art technology for the entry level market. The 1982 Jag was expected to be direct drive, where the driven clutch mounts to the track drive axle, replacing the jackshaft and chaincase. Gear reduction typically handled by the chaincase

gear set is accomplished by increasing the diameter of the driven clutch and reducing the diameter of the track drive sprockets while mounting them on a common shaft. John Deere was first to market a direct-drive sled with the 1978 Spitfire, and Polaris had the Cutlass for 1981. Cat planned to follow suit to reduce weight and complexity of the new Jag. The Jag was expected to be powered by a

### ALUMINUM DRIVE SPROCKETS

This is the only Puma with a cleated track driven by three aluminum sprockets (left), powered by a 440 fan, oil-injected twin & direct drive.



440cc Suzuki motor.

Cat also had another sled in development similar in size to the Jag: the Puma. The four known Pumas owned by collectors all have lightweight 440cc Suzuki fan-cooled, single-carb twins with the direct-drive system. But this machine also raises interesting questions



## POLARIS AMERICAN SNOWMOBILER DEALER LISTINGS

### CONNECTICUT

**Waterbury**  
LAND N SEA POWERSPORTS  
2974 E. Main Street  
203-755-2682  
www.landnseamarine.com

### IOWA

**Fairbank**  
MYERS POLARIS  
304 E. Main  
319-635-2311 888-282-9992  
www.myerspolaris.com

### MICHIGAN

**Tecumseh**  
J & L MOTORSPORTS  
7811 E. Monroe St.  
517-423-9559  
www.jandlmotorsports.net

### MINNESOTA

**Jackson**  
JACKSON SPORTS, LLC  
166 Industrial Parkway  
507-847-3977 800-299-8151  
www.jacksonsports.com

**Kasota**  
VETTER SALES & SERVICE, LLC  
540 N. Rice St.  
507-934-4628  
www.vetterpolaris.com

**Monticello**  
MOON MOTORSPORTS  
3613 Chelsea Road West  
763-295-2920  
www.MoonMotorsports.com

**White Bear Lake**  
TOUSLEY MOTORSPORTS  
1400 East County Rd. E  
651-483-8296  
www.tousleymotorsports.com

### NEW MEXICO

**Albuquerque**  
ROSEDALE MOTORSPORTS  
8994 4th Street NW  
505-897-1519  
www.rosedalemotorsports.com

### NEW YORK

**Gouverneur**  
FUN UNLIMITED  
2068 State Highway 812  
315-287-4144  
www.fununlimitedpolaris.com

**Phoenix**  
INGLES PERFORMANCE, INC.  
413 Besaw Rd.  
315-598-7422 888-246-4537  
www.inglesperformance.com

**Troy**  
EDELMAAN'S POLARIS, KTM & HUSQVARNA  
172 Edelman Ln.  
518-663-5573  
www.edelmannsales.com

### OREGON

**Boring**  
MT. HOOD POLARIS, INC.  
27850 SE Hwy. 212  
503-663-3544  
www.mthoodpolaris.com

**John Day**  
BYRON'S JOHN DAY POLARIS  
821 W. Hwy. 26  
541-575-0828  
www.johndaypolaris.com

### PENNSYLVANIA

**Johnstown (Mundys Corner)**  
MARTIN MARINE SALES, INC.  
763 Pike Rd.  
814-749-9931  
www.martinmarine.com

### SOUTH DAKOTA

**Midbank**  
MIDWEST POWERSPORTS, INC.  
1608 Morningside Drive  
605-432-9111  
www.MidwestPowersports.net

### WISCONSIN

**Fond du Lac**  
FRED'S FASTRAC SALES & SERVICE, INC.  
N7665 Hwy. 151  
920-921-7071  
www.fredsfastrac.com

**Monroe**  
MONROE POWERSPORTS  
2820 County Hwy. DR  
608-325-5056  
www.mpspolaris.com

**Oak Creek**  
SPORTLAND 2, INC.  
7221 South 13th St.  
414-764-2800  
www.sportland2.com

**Potter**  
GRUETTS, INC.  
101 Main St.  
920-853-3516  
www.gruettinc.com

**Waunakee**  
CARL F. STATZ & SONS, INC.  
6101 Hogan Rd.  
608-849-4101 888-867-8289  
www.carlstatz.com

### CANADA-ON

**Sturgeon Falls**  
STURGEON MOTORSPORTS  
27 Golf Course Road  
705-753-9181  
www.SturgeonMotorsports.ca

Look for the next issue of *American Snowmobiler* at these fine dealerships.

Dealers in this ad have paid to participate in a co-op program with AMERICAN SNOWMOBILER. This list represents only a partial number of Polaris dealerships across North America.

Get all the practical tips, techniques, and reviews you need to enjoy **thrilling** sledding adventures!

Subscribe online at: **www.AmSnow.com!**



about existing prototypes.

With any new product, there are going to be different versions of prototypes built. Early prototypes can test out new concepts. If successful, the concept sled will move to the pre-production phase, where near-production quality sleds may roll down an assembly line. For example, Adam Leubner owns an early prototype Cougar with an aluminum hand-formed nose cone and other unique features compared to the three later Cougar prototypes with fiberglass nose cones and pans. The later sleds have a bright graphics package and "Cougar" embroidered on the seat, whereas Leubner's Cougar has only minimal pinstripes.

The known Pumas, however, all seem to be unique. Most are direct drive, but some have rubber tracks with a 2.52-inch drive lug pitch, driven by two rows of drive lugs on the center belt, while Leubner's Puma has a 2/3-cleated track with

triple billet aluminum drive sprockets engaging a row of drive lugs on each of the three track belts. Cleated tracks are generally thinner and require less power to turn, but sacrifice traction compared to rubber tracks. Adam's Puma also lacks a suspension wheel kit, possibly because the side rails are closer to the snow than rubber track sleds, which have complete wheel kits installed.

There is also another very unique Puma prototype that is nothing like the direct-drive sleds. It has a very conventional chaincase setup, and sports unique bodywork and a slightly different seat variation. Unlike the king/queen setup of the direct-drive models, it has a flat seating area for both driver and passenger.

So far, only one of these prototype Pumas have come to light, and its presence begs more questions than it answers. This Puma was slated to be powered by a 275cc oil-injected, free-air motor, or a

300cc fan-cooled, oil-injected single as an option. According to retired Cat engineer Brian Espeseth, all the direct-drive sleds should have been 440 Jags for 1982. Brian tells us he purchased about two dozen 1982 models from Arctic Salvage, and he has no recollection of direct-drive Pumas. So this leaves a bit of a mystery as to the origin of the three Pumas with direct drive.

Arctic was also working on more advanced concepts. John Sandburg's "50 Years of the Cat" book shows the first public picture of a concept "El Tigre Sport" that was a more finished version of the author's "#28 Doug Oster Cross Country Racer," circa 1980. The Sport has a trailing arm IFS front suspension with a dual internal shock long-travel rear skid. It also featured Cat's direct-drive setup. At least one or two of these are

known to be in collectors' hands, and by the finished condition of the machine, it could have been ready for production by 1983 or so.

Tom Rowland again is the fortunate owner of what is thought to be a concept 1983 El Tigre 6000. This sled has a very unique IFS suspension system. Upon inspection, you'll see details of designs that were not fully perfected until the 1985 AFS machines. This sled features outboard rear

shocks, lowered footrests for better ergonomics, and swoopy rear bodywork.

It's bittersweet to talk about what Cat had in the pipeline for 1982 and later, but their comeback in 1984 was extraordinary. The follow-up act of releasing the all-new 1985 AFS El Tigre and Cougar was no less impressive. Well played, guys. Well played. 🐾

## THERE ARE FOUR KNOWN 1982 PUMAS OWNED BY COLLECTORS.

**THE MIDWEST'S  
PREMIER  
ski-doo  
DEALER**

New & Used Sleds In Stock!

Largest selection  
of Ski-Doo Riding Gear,  
Accessories  
and Parts!

BRP Platinum  
Certified  
Service  
Department!

Since 1981  
**ROB'S**  
PERFORMANCE  
MOTOR SERVICES  
108000 Creek, WI  
920-699-3288

**PLATINUM  
CERTIFIED**

I-94, EXIT 267 1 MILE SOUTH  
JOHNSON CREEK, WI 920-699-3288  
**ROBSPERFORMANCE.COM**

**ski-doo** 

©2015 Bombardier Recreational Products Inc. (BRP). All rights reserved.  
® and the BRP logo are trademarks of BRP or its affiliates.

  
**SIMMONS**  
435-752-4951  
www.flexi-skis.com

Shad Simmons  
#867

**Ultimate Performance**

Simmons-Flexi-Skis excel in stability, flotation and incredible maneuverability. The only true flexible ski that absorbs bumps, resulting in added suspension and control.

  
Dual Keel Design

Unsurpassed technology,  
snowmobiling has never been so fun!

Help Keep Snowmobile Trails  
Open and Healthy.

www.treadlightly.org

treadlightly!





1



2



3

**THE PINZ COLLECTION** (1) As you can see from his multi-colored display, Les' collection does not play favorites or have brand loyalties. (2) One of two 1976 Scorpion Sno Pros ever made. (3) A 1971 Polaris TX Racer (left) and a 1968 TX 500 with a 396cc engine.

# MAN OF IRON

Hall of Famer and AmSnow Test Rider Les Pinz curates 50 years of snowmobiling!

BY ROSS HALVORSON • Les Pinz photos

**He is definitely one of** the snowmobile industry's superheroes. Most of you know him as a "Vintage Expert" and the writer of our popular "Backtracks" articles at the end of this and every issue of *AmSnow*. But Les Pinz is more than just an invaluable member of our crew. He's also been a snowmobile historian for 50 years!

Les has been with *American Snowmobiler* for 22 of those 50 years, and he's the "go-to guy" for us and many passionate vintage fans across the country!

We are lucky enough to have "backstage passes" to Les and his huge archive of sleds. Since this is our special vintage section, we thought we'd share just a little bit about Les and his sleds. Enjoy!

## ★ A budding interest

Les is a native Minnesotan who lists his age as "experienced." He grew up



near Isle, Minn., on the southeast shore of Lake Mille Lacs. His father came home with a Polaris Little Andy in 1965, and the Pinz family fell in love with snowmobiling right there.

"We all tried riding it and had so much fun," recounts Pinz. "We just had

to keep doing it!"

So the Pinz family went all in, opening a Scorpion dealership in 1966. They also added Polaris to the dealership in 1967.

"We had to buy three sleds from Scorpion for a total of \$1,841, plus

**FLY**  
RACING

FLYRACING.COM

**WINDPROOF**  
TECHNICAL JERSEY





**PARACHUTE ATTACHED!** Pinz's one-off sleds include the Polaris X-3 of the 1970s equipped with a safety parachute (top). A history of engines surrounds the museum.

\$30 worth of parts, in order to open our dealership," said Pinz. He still has that original invoice from October 1966 framed in his museum near Isle.

The dealership was more than a way for the Pinz family to make a living. They also owned a sand and gravel company that employed a number of people in the summer-time. The snowmobile dealership gave the family a means of keeping those folks employed in the winter.



## Les' first race

"My first race was 100 miles around Lake Mille Lacs on a Scorpion with about four inches of travel in

the suspension, and it beat the living hell out of me!

Lake Mille Lacs holds about 5,000 fish houses each year. They were gone in March for the race, but all the plowed ice roads with 3- to 4-foot banks remained!

About one-third of the way through the race I thought, 'I'm going to make it, but there's no chance this sled's going to make it!' We stopped to re-fuel with the sled miraculously still intact,

Ever since his days of helping run the family dealership, snowmobiling has been a focal point in Les' life. Early on, you'd find him racing cross country or oval enduro races from the Rocky Mountains to New York. Les was a World Series winner in 1971, when the race was held in New York. He was awarded the first place trophy by Miss New York (he never leaves that out of the story).

He's been an avid member of his snowmobile club (Mille Lacs Drift Skippers) for around 40 years, where he's held nearly every office at least once. One of his favorite jobs is running the groomer.

"I get a great feeling giving back to my community," said Pinz. "There is nothing better than taking a groomer out on a rutted-up trail and making it super smooth so snowmobilers can enjoy. When you're riding and you come onto a newly groomed trail, you have a hard time holding back a super smile in your helmet."

Les holds the well-deserved distinction of being a member of the International Snowmobile Hall of Fame (2011). To this day, he accompanies the *AmSnow* staff on their test rides, and he's one of the most popular "cover riders" in *American Snowmobiler* history.

## ★ It started with two

Through 50 years of snowmobiling, one accumulates a number of memories. Les just decided to hang on to most of them in the most literal

sense, starting with a couple of 1976 Scorpion Sno Pro custom builds he raced. From there, the collection has grown to more than 100 sleds. He displays more than 80 fully restored or original snowmobiles in his museum (11,000+ square feet).

The remaining sleds are in various states of assembly. Any vintage aficionado can appreciate the time it takes to piece a sled together.

"I don't have a favorite brand, but I like the variety of engineering," said Pinz. "I'd rather be called a historian than a collector. I just want to instill what [snowmobiling] was like to younger people."

Les' display is not just limited to complete sleds either. Touring his showroom, you'll see vintage helmets, garments, signs and advertisements. You'll also find an Arctic Cat bicycle and a "Grass Cat" riding lawn mower. He also has parts, molds and various engines displayed all on their own.

"I always look for the rare, unique things," said Les. "I love engines because of how they initially came from Germany as water pump motors, and they needed to work in winter conditions."

He's seen plenty in the way of change in his 50 years in the sport. Most notably, he says, are how today's sleds are powered.

"What's most impressive is the quality of the engines," said Pinz. "Around 1970, OEMs started making snowmobile-specific engines. Material changes, different ideas, everything is so light and durable now for the HP the machines put out compared to what it was. I remember riding only 20-30 miles with parts falling off. Today's engine-clutch combos get more power to the track with smoother reliability."

When asked what his advice would be to today's snowmobiler, he replied, "Don't ever be afraid to tackle a vintage project. Seek out someone who rode that sled and can teach you about it. There's a great personal satisfaction in riding something you fixed or restored. Plus, riding is really fun!"

We couldn't agree more! 🐾



# SNOWMOBILE & ATV AUCTIONS

February 6 • March 5 • April 2  
May 7 • June 4

Selling over 5000 snowmobiles and atv's every year since 1974 in southern Michigan. No selling commissions fees. Sell any item for only a \$25.00 entry fee. Buyers from 12 states, Canada, plus overseas buyers. Pictures, auction price reports, motel listings, maps, and all information to buy or sell are at: [www.snowmobileauktion.com](http://www.snowmobileauktion.com)

## YOU CAN BUY OR SELL

White Star Motorsports Auctions – Bronson, Michigan  
Phone 517-369-1153 • Fax 517-369-2024

**HANSON  
RACING  
ENGINES**

BE PREPARED  
CALL TODAY

GREAT PRE-SEASON DEALS!



**2008-2015 Polaris 800  
Durability Kits**

+2-3 Real Horsepower  
Stronger Alloy Pistons  
Titanium Nitride Coated Rings  
Precision Ground Aluminum Spacer

**W WISECO**

**PROX**

**WIBB**

\*\*\* NEW ONLINE STORE - Order Online 24/7 \*\*\*

(651) 765-2405 | [hansonracingengines.com](http://hansonracingengines.com)

# Performance Driven! Performance Proven!



Everything about an Ultimax belt is designed to deliver superior performance and dependability. With specially formulated rubber compounds and extra strong aramid cord, Ultimax is designed for the rider who refuses to settle for second best!



The Ultimax family includes Max, Pro and XS snowmobile belts, plus Ultimax MD (Multi-Duty) and Ultimax ATV/UTV/SxS belts.



## Ultimax

Improved design for greater flexibility and cooler running. Max is thicker for added strength and longer belt life. Designed for machines under 500cc. One year warranty. Made in USA.

## Ultimax PRO

Delivers enhanced performance and longer belt life. The hefty cross section allows more surface contact to the clutch for less slippage and more acceleration. The advanced design dissipates heat and boosts flexibility. One year warranty. Made in USA.

## Ultimax XS

Peak power and peak efficiency for screamin' hi-performance. Purpose-built for high horsepower sleds. Specially formulated rubber compound found in no other snowmobile belt. Cooler running. Longer life. One year warranty. Made in USA.

On the track or on the trail, you can depend on Ultimax. Champions choose Ultimax, the same belt available from your local powersports dealer.



[ultimaxbelts.com](http://ultimaxbelts.com)

**castle**

DON'T GET CAUGHT  
IN A FOG!

**FORCE**  
SNOW\*GOOGLE



FORCE SE \$64.99  
FORCE SOLID \$59.99

- FLEXIBLE POLYURETHANE FRAME
- CUSTOM OVERSIZE TRIPLE STAGE FOAM WITH ULTRA-WICK QUICK DRY FLEECE
- REMOVABLE RUBBERIZED NOSE GUARD
- UV 400 DUAL PANE MIRRORRED ANTI FOG/ ANTI SCRATCH COATED REPLACEABLE LENS
- MICRO FIBER CARRY BAG INCLUDED

SEE THE COMPLETE LINE AND DEALER LOCATOR AT

[castlesales.com](http://castlesales.com)



© 2015 CASTLE SALES CO., INC.



# VINTAGE EXPOSÉ MASSEY-FERGUSON

Rare  
collection  
of every  
body style

STORY AND PHOTOS  
BY BILL VOSSLER

**D**oug Holicky has been collecting snowmobiles for most of his 34 years. "When I was a teen, my uncle had a Massey-Ferguson, and when I was 16, I had one of my own, and had them ever since," says Doug.

The New Prague, Minn., man's first Massey-Ferguson was a 1971 500 SST that another guy was scrapping out. "My uncle said if I wanted to build

one, here was my chance."

It had a hood, framework and skis, but no engine. He paid \$15 for it at the salvage yard. Eventually, he found an engine and parts and put them together to make it work. He even sewed the seats. His reward was almost immediate.

"I was 17 at a snowmobile show, and people offered to buy it from me right there. That made me feel good," says Doug.

**WAITING ON A STORM** Doug Holicky sits on a Massey-Ferguson 440 Storm, one of his many MF machines. A 1976 MF Whirlwind (bottom, left) is just like a 1976 Scorpion Whip, but with different headlights. The 1976 MF 440 Cyclone (not pictured), a twin of the 1976 Scorpion Brut, is Doug's rarest.

## ★ Tractor Company Sleds

Massey-Ferguson began manufacturing snowmobiles in 1968.

"Compared to other snowmobiles of the era, they didn't come out too great," says Doug, an auto mechanic. "They weren't racy, they weren't fast, and like others in the '60s and '70s, snowmobiles weren't generally made for recreational use, but for going out to feed cows or hunting in the woods."

Massey-Ferguson advertised as work machines and for outdoor fun. Not performance like Scorpions, Ski-Doos, and Arctic Cats. The Massey-Fergusons were geared toward the farmer, and not top of the line."

### ★ My MF Collection

Doug has 15 MF snowmobiles, and nine of them run. The others wait for him to work on them, but he doesn't restore every machine he gets.

"Maybe some cosmetic painting, but if they look nice, and are original mechanically, like a couple of mine, I won't paint or polish," he says.

The others are taken apart bolt by bolt to assure they are mechanically sound, and have good drive tracks, wheels, engines and suspension.

"If they're sound, then they're reliable," says Doug. "I do drive every one of them."

Doug and his wife, Lori, showed the soundness of his machines, each driving a Massey-Ferguson snowmobile on a one-day 120-mile fundraiser ride for St. Jude's Hospital in St. Paul, Minn.

"They performed flawlessly," says Doug. "The trick is to know your snowmobile inside and out, and it will treat you well and give you a good ride."

Doug's rarest Massey, a 1976 440 liquid-cooled three-cylinder Massey-Ferguson Cyclone, is identical to a 1975 Scorpion Brut, the last of the Brut-style sleds. Scorpion bought Brut in the mid-1970s.

"I knew about that particular Cyclone for a few years, and urged others to get it, because I couldn't afford it, and I would have been glad to see someone else get it," says Doug.

Eventually, Doug bought it for \$600. "One of the best opportunities I ever had, and I'm glad I took it," he says.

Taken apart, everything looked original. Doug added a belly pan and skis, a spindle, springs, and a new hood.

"Just cosmetic stuff, really," he says. "Mechanically it was



okay. The chaincase cracked later, but I put on a new one. I try to still keep them original."

Finding parts is the hardest aspect of restoration. "The engine is critical, and finding parts for it is hardest," says Doug. "Engines have to be stout, with new seals, kept up to code, good and reliable."

Getting them to run on today's gas, without detonation or blowing up, is a challenge.

"You have to really detune the engine by raising the port timing to lower compression, and retard the timing a lot," says Doug. "I run good 2-cycle oil in them, with the carb real rich, and know how to tune them on a cold day or a warm day."

Sometimes a little lead additive keeps them going. New unleaded fuel doesn't combust like the old fuel, and causes problems like vapor lock.

"The new fuel is hard on the rubber in carburetors, too," adds Doug. "I'm just trying to get the fuel back to where it was in the '70s."

### ★ More Massey!

Doug would like to complete his collection of MF snowmobiles by adding the Formula models 1, 2, and 3.

"I have a 4, and had a 2 in bad shape that I sold so another guy could make his 100 percent," he says. "Otherwise, I have pretty much every model number. Basically every body-style ever made."

Most people who see them say they didn't know Massey-Ferguson made sleds. They also claim the MF Storm is a Scorpion, and it is, Doug says. Trail-A-Sled Inc., a Scorpion manufacturer, built sleds for MF from 1976 to 1977, based on Scorpion models.

The 1977 MF Storm and Scorpion Sting are the same, as are the 1976-77 MF Whirlwind and Scorpion Whip (just different headlights). The 1976-77 MF Chinook and Scorpion Little Whip are also twins. "One reason I collect MF is because I grew up on Scorpions," says Doug. "I like the MF name, and because Scorpion parts are easier to find. I get the best of all worlds."

Doug's biggest challenge was getting his 1977 Chinook up to speed. "It started as just an aluminum tunnel," he says. "Finding the hood was a huge deal, because these plastic hoods are all cracked and busted. I had to buy a whole snowmobile to get the red hood."

Getting original decals and finding parts took some two

years. "Finding parts means shopping for the best deal on the internet, through friends who don't collect MF (fortunately for me), or just driving around and looking," says Doug. "I turned down several opportunities to finish the Chinook because I couldn't find a good deal."

With all the parts on hand, setting it together and getting it running took two weeks. "If you have everything laid out and the time, it's really not that difficult," he says.

Sometimes Doug has to make his own parts, or alters others to fit. "You have to figure out a way to make it work," he says. "The best way is to have a metal lathe and tool shop so you can do a lot of repair, flux welding and the like. Without the resources, you have to improvise."

Windshields are hard to find, so Doug traces them and makes them himself. "Maybe making some of these things isn't 'original,' but it is cost-effective," he admits.

Tracks can be improvised, he says. "Tracks were, for the most part, one-size-fits-all. Those from John Deere 400, 500 and 600 sleds have the same dimension as Massey-Fergusons. Just change the drive socket pitch, and the tracks will fit. The tracks make a JD imprint in the snow instead of MF, but that's fine."

To change drive sprockets, "just pop a couple of pins," says Doug. "If you're not prejudiced to any brand, the sled companies in the '60s and '70s bought parts from the same places, so you can get what you need." 🐾

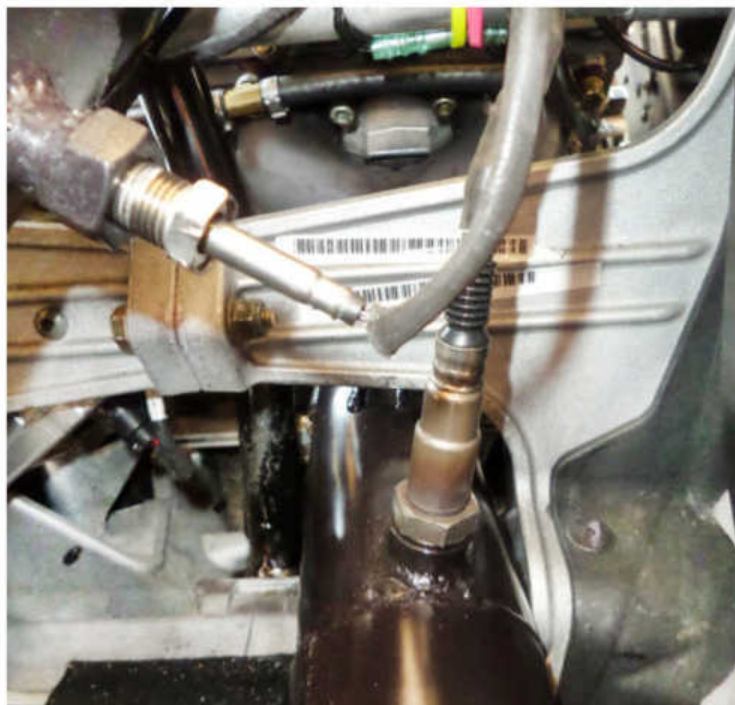
## Doug Holicky snowmobiles

THIS MASSEY-FERGUSON COLLECTION INCLUDES:

- 1968 380
- 1970 500 SST
- 1972 Formula 4
- 1973 400 WT, not restored
- 1974-75: several models, but none restored
- 1976 Whirlwind
- 1976 Cyclone
- 1977 Chinook 440
- 1977 Storm 440 (last year and last model for MF)



**ON THE WEB** // More Vintage Sleds at [www.AmSnow.com/vintage](http://www.AmSnow.com/vintage)



**LEFT:** For your most consistent readings, the wide-band oxygen sensor should be mounted as close as possible to the Y-manifold. **ABOVE:** These tuning instruments are small and easy to use. The EJK tuner board is on the left, along with a power switch for the Koso gauge, which is mounted conveniently on the tank cover.

# How to get the right tune!

## ELECTRONIC TUNING WITH AN OXYGEN SENSOR

» **If you have been following** our tech stories for the past couple of issues of *American Snowmobiler*, you may have picked up some tips on how to tune your carbs with the help of aftermarket tuning products. We also discussed checking the results with EGT gauges. That's all very interesting IF you have an older carbureted sled, but what do you do if you have a newer sled with all new electronic injection? What if you added a pipe or modified the engine with porting or a big bore kit? How do you adjust the fuel for the increased power?

### ■ EFI Tuning Info

In most cases, electronic injection uses feedback loops, either from an EGT sensor in the pipe or a knock sensor in the head, and on some models both EGT and knock sensors. They automatically compensate for lean conditions, but the fuel maps may not be ideally suited for the new performance mods.

The stock computer on most sleds compensates for improvement in power on the top end. These programs run rich enough for additional power. However, low-end and mid-range acceleration is

usually programmed leaner to give fuel economy at part throttle, where most trail riding takes place. Fortunately, the aftermarket offers "tuners" to modify the stock fuel curve to your new mods.

There are two mainstream models presently on the market for snowmobiles. They both plug straight into the stock wiring harness, but the programming offers two different approaches. The DynoJet tuner needs to be programmed using a computer. A new map with columns for RPM and throttle position is filled in with the desired addition in fuel flow in percentages of the original map. If you want to be 10% richer at top RPM and wide-open throttle (WOT), you enter 10 in the appropriate space. This new map is then downloaded into the DynoJet tuner. The drawback with this system is that it requires a costly PC and some computer programming skills, and it cannot be changed easily in the field away from a heated workspace with a computer-friendly power source.

There is an alternative to the DynoJet that addresses these problems. The Dobeck EJK (Electronic Jet Kit) is

designed to be operated in the field without a computer. Tuning requires scrolling up and down to change the settings in six different modes. Changes can be made in the field with the engine running, making it ideal for testing different settings at your favorite track or lake.

At our shop, Aaen Performance, we have been working on a new 2015 AXYS 800 that belongs to Rob Frye. He wanted an Aaen full-pipe setup, including our lighter Double Core silencer. This combination produces roughly 8hp more than stock at an RPM increase of 500 RPM (8100 vs. 7600 stock), and it also saves 15 pounds in weight. Rob was also interested in keeping track of the air/fuel ratio and having the ability to change the calibration at will.

We therefore agreed to install a wide-band Koso oxygen sensor along with an EJK Dobeck tuner. Both products are easily available and reasonably priced. The Koso air/fuel gauge with a Bosch wide-band sensor retails for \$339.95, while the Dobeck EJK tuner sells for \$250. Both are within range of a reasonable budget.



The Koso air/fuel gauge comes complete with an extensive complement of mounting brackets and the Bosch oxygen sensor, as well as easy instructions. As with most Koso gauges, it can be programmed to flash a warning for either too rich or too lean conditions.

### ■ Installation and Testing

A threaded adapter is included for the oxygen sensor that has to be welded into the exhaust system at a high temperature location. This means as close to the Y-pipe as possible. In order for the oxygen sensor to operate correctly, it needs to stay hot. The midsection of the pipe is not a good spot, as the temperature drops by 50% by the time the gases get there. The higher temperature also burns off deposits, which is important on 2-stroke sleds, as oil residue may build up on the sensor after a while.

We also recommended installing the sensor to point down at a minimum 30-degree angle so that any gas and oil runs out of it and does not clog it up.

The gauge is made to operate at 12 volt DC. This is not a problem on our AXYS Switchback 800 test machine, since it has electric start and a battery as stan-



**LEFT:** The Koso air/fuel gauge comes complete with oxygen sensor and wiring harness.

**BELOW:** The Dobeck EJK tuner is small and easy to mount, and comes with a wiring harness that plugs in directly to the stock wiring harness.



dard equipment. The instructions showed the positive lead to be mounted to the main power switch, but this became difficult because the harness was buried under a lot of bodywork, so instead we hooked both leads directly to the battery and installed a simple on/off switch in the positive lead.

Mounting the gauge was straightforward with the easy bracket, which also uses rubber bushings to protect the gauge from vibrations. Between the sensor and the gauge is a state-of-the-art waterproof plug, and the harness is plen-

ty long enough to mount the gauge at any convenient location.

Mounting the EJK tuner was also a cinch. The unit has a custom harness that plugs directly into matching plugs in the stock harness. The only extra wiring consists of running a ground lead to the battery or to a common grounding point



# ski-doo



## AMERICAN SNOWMOBILER DEALER LISTINGS

### CONNECTICUT

**Waterbury**  
 >> **LAND N SEA POWERSPORTS**  
 2974 E. Main Street  
 203-755-2682  
[www.landseamarine.com](http://www.landseamarine.com)

**Yalesville**  
 >> **HUNTER'S RECREATIONAL PRODUCTS**  
 263 Church St.  
 203-269-2183  
[www.huntersskidoo.com](http://www.huntersskidoo.com)

### IOWA

**Independence**  
 >> **GARY'S OK BODY SHOP**  
 1704 1st St. West  
 319-334-3731  
[www.garysskidoo.com](http://www.garysskidoo.com)

### MASSACHUSETTS

**Palmer**  
 >> **FLAMINGO MOTOR SPORTS**  
 2 Wilbraham St.  
 413-284-1673  
[www.flamingomotorsports.com](http://www.flamingomotorsports.com)

### Pittsfield

>> **PITTSFIELD LAWN & TRACTOR**  
 1548 W. Housatonic St. (Rt. 20)  
 413-443-2623  
[www.plt.com](http://www.plt.com)

### MICHIGAN

**Bergland**  
**TIMBERLINE SPORTS**  
 35714 West M-28  
 906-575-3397  
[www.timberlinesport.com](http://www.timberlinesport.com)

### MINNESOTA

**Alexandria**  
**OLLIE'S SERVICE, INC.**  
 1213 Broadway  
 320-763-4455  
[www.ollieservice.com](http://www.ollieservice.com)

**Monticello**  
**MOON MOTORSPORTS**  
 3613 Chelsea Road West  
 763-295-2920  
[www.MoonMotorsports.com](http://www.MoonMotorsports.com)

**North Branch**  
**OLSON POWER & EQUIPMENT**  
 38560 14th Ave.  
 651-674-4494  
[www.olsonpower.com](http://www.olsonpower.com)

### White Bear Lake

**TOUSLEY MOTORSPORTS**  
 1400 East County Rd. E  
 651-483-8296  
[www.tousleymotorsports.com](http://www.tousleymotorsports.com)

### MONTANA

**West Yellowstone**  
 >> **YELLOWSTONE ADVENTURES**  
 131 Dunraven St.  
 406-646-7735 800-231-5991  
[www.yellowstoneadventures.com](http://www.yellowstoneadventures.com)

### NEW HAMPSHIRE

**Alton Bay**  
**IRWIN MARINE POWERSPORTS OF ALTON**  
 723 East Side Dr., Rt. 28A  
 603-875-5700  
[www.irwinmarine.com](http://www.irwinmarine.com)

**Troy**  
**TROY ARCTIC CAT**  
 136 North Main St.  
 603-242-7839  
[www.troyarcticcat.com](http://www.troyarcticcat.com)

### NEW YORK

**Phoenix**  
 >> **INGLES PERFORMANCE, INC.**  
 413 Besaw Rd.  
 315-598-7422 888-246-4537  
[www.inglesperformance.com](http://www.inglesperformance.com)

**Rosendale**  
 >> **ARCTIC ADVENTURES**  
 2048 Rt. 32  
 845-658-8844  
[www.arcticadventures.com](http://www.arcticadventures.com)

### PENNSYLVANIA

**Watson town**  
 >> **KURTZ MOTORSPORTS, INC.**  
 3720 Springtown Rd.  
 570-538-2160  
[www.kurtzmotorsports.com](http://www.kurtzmotorsports.com)

### VERMONT

**Derby**  
**WALT'S SALES & SERVICE**  
 1972 Rt. 5  
[waltsskidoo@hotmail.com](mailto:waltsskidoo@hotmail.com)  
 802-766-5583  
[www.waltsvt.com](http://www.waltsvt.com)

### WISCONSIN

**Johnson Creek**  
**ROB'S PERFORMANCE MOTORSPORTS**  
 601 Hwy. Y  
 920-699-3288  
[www.robsperformance.com](http://www.robsperformance.com)

**Luxemburg**  
**SIMONAR SPORTS**  
 1601 Main  
 920-845-2725  
[www.simonarsports.com](http://www.simonarsports.com)

**Monroe**  
**MONROE POWERSPORTS**  
 2820 County Hwy. DR  
 608-325-5056  
[www.mpsskidoo.com](http://www.mpsskidoo.com)

**Oak Creek**  
**SPORTLAND 2, INC.**  
 7221 South 13th St.  
 414-764-2800  
[www.sportland2.com](http://www.sportland2.com)

>> **Look for the next issue of American Snowmobiler at these fine dealerships.**

Dealers in this ad have paid to participate in a co-op program with AMERICAN SNOWMOBILER. This list represents only a partial number of Ski-Doo dealerships across North America.

# BLAZE your own trail with American Snowmobiler!

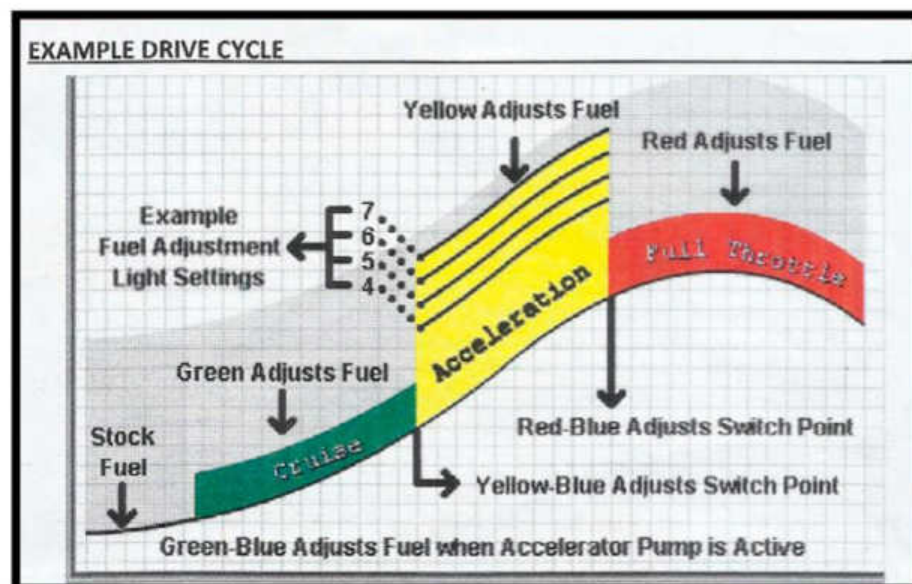
Visit [www.AmSnow.com](http://www.AmSnow.com)



AMERICAN  
**SNOWMOBILER**  
magazine



**BEING FAST, MADE EASY** An extensive instruction sheet comes with this easy-to-read map, as well as a chart to understand how inputs change performance. For troubleshooting and base settings for all models in stock or modified condition, users can visit [www.electronicjetkit.com](http://www.electronicjetkit.com).



on the frame. There is no bracket for the EJK Tuner unit itself; it is just installed on any flat body surface with a glue pad. In our case, we found a convenient spot on the left side that can easily be reached while you are also operating the throttle with your right hand.

We bought the EJK unit, which fits on the 2014-2016 models of 600 or 800 Polaris Pro-RMK, Assault, Indy, Rush, Switchback and AXYS sleds. EJK has a great website with extensive instructions and tuning directions. They also have base settings to match stock engines and engines with modifications like a performance pipe.

At first glance, it seems that the tuner would be SUPER easy to operate, but it will take a little time and practice to get used to all the combination of settings available, so be patient!

The tuner board consists of three larger buttons. The center button lets you scroll through six different modes, while the left button subtracts fuel and the right button adds fuel to the base program.

Above the buttons is a row of eight LED lights that will light up in different colors and blink in different sequences depending on what tuning mode you are in.

Mode 1 will light up green for adjusting the green zone, which is typically done during idle and slow cruising conditions. Mode 2 will light up yellow and typically adjusts for mid-range and accel-

eration. Mode 3 lights up red and adjusts for full throttle and RPM power conditions. Mode 4 adjusts the RPM at which idle corrections can be made. Mode 5 adjusts the RPM at which the yellow zone engages, and Mode 6 adjusts the RPM at which the yellow zone transitions into the red zone.

There are also a number of other optional modes for acceleration, deceleration, max boost pressure, and max fuel pressure. These extra modes are not available on this unit and adjustments on the AXYS were made in the first six modes only.

## ■ Keys to a good tune!

The key to being proficient with the EJK is a good understanding of the modes and the lights, both the color and the flashing frequencies. Our first attempt with dyno load and no adjustments showed an air/fuel ratio on the Koso gauge of 12.5 at full load. This is a little rich, as 14.7 is often quoted as ideal, but that relates more to 4-strokes. So 2-strokes may need a little more fuel for cooling and lubrication.

After some adjustments on the top end, we got the air/fuel ratio to 13.5 and gained 5hp on the dyno. This showed that the stock fuel calibration is rich on top end, but Rob's sled only had a few miles on it and was possibly still in the "break-in" mode. The 5hp gain matches reports of a similar gain once the Polaris is off the break-in cycle.

The good news was that we could change the air/fuel ratio by a substantial amount with the Dobeck tuner, and that it showed up right away on the Koso gauge and on the dyno reading.

There is, however, only so much you can do on the dyno. Real-life load conditions often are more transitory during acceleration, depending on the weight of machine and driver. As a result, final adjustment has to be done when testing in the field.

Rob will give the setup a good try this winter, and we will be greatly interested to find out whether this combination of air/fuel ratio gauge and EJK tuner is easy and practical to use.

Many questions remain about whether the air/fuel gauge is easier to tune by, or if the EGT gauge proves more reliable. We will install both on our trusted test mule this winter. It will be interesting to see what we find with the two instruments operating side by side. Stay tuned for the updates! 🐾

# BIKEMAN PERFORMANCE



- BIG BORE HITS
- BOLT-ON HITS
- HIGH FLOW MANIFOLDS
- PERFORMANCE PIPES
- LIGHTWEIGHT MUFFLERS
- CLUTCH HITS
- BILLET HEAD HITS
- 1100 TURBO EXHAUST
- 1100 TURBO ECU TUNING
- & MUCH MUCH MORE!!!

**BikemanPerformance.com**  
**Phone: 715-483-3003**

## AmSnow is now available DIGITALLY!



American Snowmobiler's fascinating content and amazing photography are now available in convenient digital format for your PC, Mac, laptop, iPad® and select Android™ tablets running version 2.2 or higher.

iPad is a trademark of Apple Inc., registered in the U.S. and other countries. Android is a trademark of Google Inc.

**Visit [AmSnow.com/digitaleditions](http://AmSnow.com/digitaleditions) to subscribe or learn more.**

P17134

# POWER SECRETS EXPOSED!

Tests show up to 5 HP more in midrange than other brands!  
**Result: Hard acceleration and great throttle response.**




RS & Flatslide Carbs  
 Available to 48MM.

**POLARIS: AXYS, RUSH, INDY, RMK, SWITCHBACK  
 SKI-DOO E-TEC, MXZ, SUMMIT • YAMAHA: NYTRO, VIPER, PZ**

**CYLINDER PORTING, BIG BORE KITS, CARB KITS, CLUTCH KITS**




Tune your sled for maximum performance with our Clutch and Carb tuning Handbooks.

# AAEN PERFORMANCE

316 Sheridan Rd., Racine, WI  
 53403 USA (262)552-8981  
**[WWW.AAENPERFORMANCE.COM](http://WWW.AAENPERFORMANCE.COM)**

# CASTLEX



## BARRIER 2 BOOT

### \$179<sup>99</sup>

MEN'S & WOMEN'S STYLES AVAILABLE

- 3-LAYER MERINO WOOL BLEND INSULATION
- CASTLE COLD SHIELD® TECHNOLOGY
- REMOVABLE INSOLE
- CASTLE DRY-X® WATERPROOF MEMBRANE
- MOLDED HIGH ABRASION TOE
- CASTLE QUICK CONNECT BUCKLE SYSTEM
- SNOW SHIELD GAITER WITH BUNGEE CORD
- RUBBER SOLE WITH EVA SHOCK CHAMBERS

SEE THE COMPLETE LINE AND DEALER LOCATOR AT  
**[castlesales.com](http://castlesales.com)**

© 2015 CASTLE SALES CO., INC.



**RIDING RIGHT** Staying to the right side of the trail is correct, and the RideLite's safety light system makes hand signaling a thing of the past. RideLite is green for the group's last rider.

# Lighting system is hands on!

## NEW LIFE FOR OLD LIGHT TECH WITH RIDELITE

» **“Don’t take your hands off the bars!”** That is pretty much the first thing you tell novices (especially children) when they are learning to ride. So why would I want to take my hands off the handlebars when riding now?

I have considered the universal snowmobile hand signals to be dangerous to use. Murphy’s Law guarantees that you will be near a corner in the trail when you meet an approaching group of riders. You’ll be frantically attempting to remember the amount of people in your group while throwing up what look like gang signs and negotiating the turn with one hand on the bars. It’s just silly when you stop and think about it!

When you take your hand off the handlebar to signal, you decrease your ability to control the sled. Your signaling hand is no longer on the brake, forcing you to sacrifice control of your machine to make a hand signal that supposedly achieves greater safety. I am sure we have all experienced sleds darting quickly to one side or another. It is much harder to control that movement with only one hand.

What many of us forget from our snowmobile safety classes is that hand signaling should only be done when safe to do so. But I am pretty sure it is never all that safe to take your hands off the bars when there is oncoming traffic. Also, most of us are so used to signaling with

our hands that it is second nature, and we signal every time we meet another group of riders, even if it may be unsafe due to speed or conditions. If you are traveling at 30 mph, and you meet riders who are also traveling at 30 mph, then you are closing in on each other at 60 mph. Meeting head-on at these speeds can have disastrous consequences!

### ■ I see the light!

On my snowmobile travels, I’ve seen many riders using the RideLite system ([www.theridelite.com](http://www.theridelite.com)) out on the trails. After a few years of seeing them, I decided to purchase one, and I’ve since encouraged many people in my group of riders to do the

same. The price of the RideLite system was just \$79 with free shipping.

The RideLite offers a safer and better way of communicating on the trail than universal hand signals. If you have not seen this LED technology, it is a bright, three-light system that mounts on the brake-hand side of the cowl, windshield or side of the sled to warn oncoming drivers that there is a group.

The first rider and subsequent riders in the group set their light to the steady yellow position, which means that there are other riders behind you. The last rider in the group sets his or her light to green, indicating that they are the last rider in the group. If you are riding alone, you obviously set your light to green. Oncoming riders quickly and easily can identify the lights and intuitively know what they mean.

There is also a hazard setting with a flashing yellow light that you can use if you have an issue along the trail. If the point man in your group looks back and sees the flashing yellow, he/she can pull over and stop the group.

Additionally, this lighting system allows groups to be better coordinated at night, when it's more difficult to see hand signals clearly. Although it is generally easy to see oncoming sleds' headlights at night, you may not always be sure how many are behind the first rider, and it is good to know if there are stragglers that may be riding fast to catch up with the group.

I spoke to RideLite's founder and president Chris Sawicki, and he informed me that although riders use the product nationwide, it is mostly riders in New England who use them out on the trails. New Hampshire was the first state to introduce a statewide re-education program with RideLite as a focal point. Vermont, Maine and New York also started similar statewide re-education programs a few years back, so they are quickly catching up!

The RideLite is very easy to install, and it's powered by your snowmobile's electrical system. Since it uses LED light technology, it draws very little power and has a long life expectancy. The RideLite comes with everything needed to connect it to your sled. Although the website states that installation time is less than 20 minutes, it can take longer if you are not familiar with your sled's electrical system.



**The RideLite offers a safer and better way of signaling on the trail than universal hand signals.**



**EASY INSTALL** – It's recommended to add an in-line fuse to the wiring for RideLite, which can hook directly to the battery. The DC converter and wiring can be zip-tied to the wiring harness in the battery compartment. Once installed, the RideLite is highly visible.

### ■ Installation

Many folks with a RideLite simply pay to have the local snowmobile repair shop or dealer install it, which costs them approximately \$70, but I installed mine myself.

There are two different options for connecting your RideLite: wire it directly to the battery or wire it to a fuse-protected circuit in your sled. With the newer sleds, like my 2012 Polaris Switchback, there is not a lot of room under the cowl to maneuver and splice into a fuse-protected circuit, so I decided to connect my RideLite directly to the battery.

The RideLite instructions state that when wiring directly to the battery, you must install an in-line fuse of no higher than two amps. Although some folks in a number of online forums have said that they wired their RideLite directly to the battery without an in-line fuse, I decided that it was a small price to pay and only a small additional investment of time to

protect my RideLite. The in-line fuse holder cost me \$6.49, and a pack of five 2A fuses was \$3.49. The trip to my local auto parts store to pick up these items increased the amount of time I spent on the project.

You will also need zip ties to secure the wire as you weave it through the engine compartment of your snowmobile. You could also use electrical tape, but I find zip ties to be easier and quicker.

I installed my RideLite using the company's Premium Mount Kit (\$36.99), which gives you

much more flexibility in mounting your RideLite, and it allows you to angle it to get the best visibility. The basic RideLite mount sticks to the surface of your snowmobile using an adhesive pad on the bottom of the mount. The premium mount bolts to your sled and will require drilling two small holes. It can be mounted in many different locations, and it's easily adjusted using a single knob. The premium mount also protects your RideLite from heavy vibrations better.

Having gone through the wiring process, I believe that the easier and quicker way to get your RideLite installed and working is to purchase the Direct Connect Wire Kit \$9.99, which connects directly to your cigarette lighter-style accessory plug. Whether you use the basic, premium or standard mount, once the RideLite is in place, just plug one end of the wire into the back of the RideLite and the other end into your 12V accessory port, and you are in business.

One of the interesting things I have noticed since installing my RideLite is that a number of riders refused to use hand signals when approaching me. This makes no sense, but maybe they were just confused. The good news is that many people have asked us where to buy them, because they also think that having the RideLite is a much safer signaling option. You can also have more fun and actually ride better because you are more focused on the trail and what is going on around you than you are on giving hand signals. If we all keep our hands on the handlebars at all times, we will have better control of our machines, and our collective riding experience will be much safer and enjoyable. You can learn more about the RideLite at [www.theridelite.com](http://www.theridelite.com). Ride right, ride safe. 🐾



Rich Baalman photo



Rich Baalman photo



Cassandra Woerz photo



Rich Baalman photo

# RESCUE ON MOUNT

BY MARK BONCHER, WITH STEPHANIE SANTEFORD

**The date was June 11, 2011,** and it was her first return to Mt. Baker in over a decade.

Stephanie Santeford had been riding snowmobiles since she was 12, and doing boondocking and off-trail riding in the big mountains of the northwest since her early 20s.

However, like many of us who grew up snowmobiling in the 1970s, 1980s and 1990s, she did not have any true avalanche training. Now we know better, and Stephanie is lucky enough to call avalanche expert Mike Duffy one of her close friends. But up until that June day, safety on the hill was not front and center in her mind. Stephanie had no real training on how to “read” a hill, slope, and the possi-

ble dangers that lurk over every drift. That can be a recipe for disaster.

## DESCENT INTO HELL

While coming over a rise, Stephanie’s riding partner, Dave Mills, went over the shoulder of what looked like a snow mound and disappeared over its side. No big deal; we have all seen a rolling hill like this before. Stephanie saw tracks going left

and right, but nothing in middle. As she slowly crept the sled up to the top of the hill, she could see Dave off his sled at the bottom telling her to STOP, but it was too late. The little bit of forward momentum she had sent her sled over. Stephanie tried in desperation to jump off the sled backwards, and with literally everything in her she clung to the cornice edge. There was at least a 20-25-foot gap opening just on the other side of the hill that she crested, with a huge black hole crevasse in between.

“This is it, I’m dead,” she thought. Unfortunately, Stephanie had unknowingly slipped off and into a half-frozen 65-foot-high waterfall! Basically, this was a waterfall cliff into a hellish riverbed that was impossible to see. After a few short





Korey Rohde photo



Rich Baalman photo



Jessica Kline photo



Rich Baalman photo



Korey Rohde photo

# Baker

SNOWMOBILES, COURAGE,  
SKILL, DETERMINATION AND A  
LIFE-OR-DEATH STRUGGLE

seconds of slipping and clawing, Stephanie fell, and her hip clipped the backside of the cliff as she dropped. She was knocked out, and she fell the rest of the way unconscious.

Her free fall ended at the inner belly of this hellhole. Once she finally came to, it was almost pitch black. She was in the crevasse/cavern and started coming to when she felt something that had hit the left side of her body. Immediately scared and holding her breath in anticipation, she thought it was the huge lip of snow above breaking loose and was going to bury her. It wasn't. Instead, a massive amount of glacier water from the waterfall was slamming her constantly and almost drowning her as she turned her helmet to look up. To make matters worse, the way Stephanie landed suspended her in the fetal position between two massive boulders.

She started to panic. Thousands and thousands of gallons of water were hitting her relentlessly, and a shoulder injury prevented her from being able to move enough to escape the deluge. (She would find out later that a dislocated shoulder and hip were among her many injuries.) Stephanie worried, "Am I going to get sucked into the river flowing out if I make the wrong move?" As her heart raced in horror, she said to herself, "I don't have much time, I am going to freeze to death."

Stephanie made attempts to move her body and climb out from between the

**WHAT HAPPENED?** In a matter of seconds, snowmobiler Stephanie Santeford went from riding beautiful Mt. Baker in the sun to being trapped at the bottom of a cliff and waterfall. Battered, she knew her life was in the balance.

boulders, but the major jolts of pain in her shoulder and back made it impossible. She would learn her injuries included a broken L1 tranverse, rib and multiple massive deep tissue hematomas to go with the dislocated joints. Stephanie's riding partner, Dave, was still up top, but because they were riding in the warm month of June, nobody had much gear.

At this point in our interview, Stephanie told me she had pretty much accepted her demise. Then she thought of Aron Ralston, the man who cut off his own arm to get out of a canyon (as por-



# LOOKING FOR THAT EXTRA EDGE THIS WINTER

#CURVEEQUIPPED  
@BRADJOHNSON590



**CURVE THRUSTERS  
STARTING AT \$79.99**



(315) 841-8730 WWW.CURVEINDUSTRIES.COM

trayed in the movie "127 Hours"), and she knew she had to fight for her life!

## OUT OF THE DARKNESS

With sheer will, Stephanie pulled herself out of the boulders and hobbled to where she could see up from the base of the cliff. It was a hopeless sight with no way out. She was soaked and shaking from the freezing glacial water. Dave was digging an access chute to try to get to her, and finally she saw him at the top of the cliff. The waterfall echoed like a jet engine, making it hard to communicate. Dave yelled to Stephanie that she had to climb. That was not easy in her condition, but she climbed up 8-9 feet. A second rescuer, Toby Tortorelli, was now there to help pull her up. Thankfully, several more people were alerted to the situation on the mountain. On snowmobiles, skis and snowshoes, they came and started trying to help.

Luckily, there were skiers and a group of climbers among her rescuers. It was at this point that Steph told me, "Then some guy just belays down to the river floor and back up to me, and I thought, I am saved!"

Three different times Steph says she thought she was dead. But thanks to Leif Whittaker and Brandon Helmstater, skiers from the U.S. Forest Service who worked together to reach her by belaying down, Stephanie began to think there was hope! Both Stephanie and Dave had actually crossed paths with these two guys on the mountain earlier in the day, and now these mountain enthusiasts were risking thousands of pounds of rock face, snow and ice coming loose, and their own lives, to help save her.

Stephanie was not out of the woods yet. She was hypothermic, and still in the crevasse with no proper harness. Several times, the rescuers and Stephanie tried to get to the top, but she would get hung up on the lip of the cliff. Eventually, they lowered her back down and reset their makeshift rope harness. The next attempt was finally a successful one!

When Stephanie got to the top, she was blue and cold to the touch. Rescuers laid their bodies on hers to get her warm. Brandy Floyd (now a sponsored rider for FXR Racing) was at the scene and the only face Steph recognized. Brandy instructed people to take seats off of snowmobiles so Stephanie wasn't lying directly on the snow. Others boiled bottles of water to lay next to her to help her warm up. Once Stephanie finally started warming up, she began dry heaving from the excruciating pain she felt as numbness around her injuries finally wore off. She remembers people screaming in her face while there on the snow to help keep her conscious.

With sheer will, Stephanie pulled herself up out of the boulders and hobbled to where she could see up.

Unfortunately, the USCG helicopter sent to evac Stephanie couldn't land due to heavy downdrafts, so they hauled her up in a swimmer basket, which bounced around for 150+ feet on its way up.

Stephanie was taken to Bellingham hospital in Washington. In the frantic emergency room, as her clothes were being cut off and she was still suffering from hypothermia, she was happy to have chosen to fight for life. Her injuries and recovery lasted for many months.

## LOOKING FORWARD, NOT BACK

Stephanie now says she is not just a better rider, but smarter too. She has conquered her fears of getting back on the snow and rides regularly again. She has also learned much more about safety, survival and avalanche skills. She equates a lot of her success to a strong subconscious and a will to "get back on the horse."

"Everyone needs to get away from the traffic and noise and overstimulation of the city and life. Being one with nature, that is what is important to me," said Stephanie.

Getting back to riding was tough, but Stephanie had some good riders and friends who helped her acquire more knowledge, skills, techniques and awareness. She is proud to say that she can load up her sled and head out to the mountains all by herself now, and she's doing some snowmobile teaching of her own as well.

"It's the best feeling to be able to pay it forward and help others learn," said Stephanie. "I am incredibly grateful and thankful."

Stephanie is also grateful that everyone came together on the hill that day to save her life. Snowmobilers, skiers, EMTs, forest rangers, hikers and many others made a life-changing difference. 🐾

## ON THE SCENE

- Want Brandy Floyd's firsthand take? Find it here: <https://www.facebook.com/notes/10150213967293773/>
- Want to see the YouTube rescue video? Go here: <https://www.youtube.com/watch?v=DdBi2HmnzHw>

# ski-doo



## AMERICAN SNOWMOBILER DEALER LISTINGS

### CONNECTICUT

**Waterbury**  
**>> LAND N SEA POWERSPORTS**  
 2974 E. Main Street  
 203-755-2682  
[www.landseamarine.com](http://www.landseamarine.com)

**Yalesville**  
**>> HUNTER'S RECREATIONAL PRODUCTS**  
 263 Church St.  
 203-269-2183  
[www.huntersskidoo.com](http://www.huntersskidoo.com)

### IOWA

**Independence**  
**>> GARY'S OK BODY SHOP**  
 1704 1st St. West  
 319-334-3731  
[www.garysskidoo.com](http://www.garysskidoo.com)

### MASSACHUSETTS

**Palmer**  
**>> FLAMINGO MOTOR SPORTS**  
 2 Wilbraham St.  
 413-284-1673  
[www.flamingomotorsports.com](http://www.flamingomotorsports.com)

**Pittsfield**  
**>> PITTSFIELD LAWN & TRACTOR**  
 1548 W. Housatonic St. (Rt. 20)  
 413-443-2623  
[www.plt.com](http://www.plt.com)

### MICHIGAN

**Bergland**  
**TIMBERLINE SPORTS**  
 35714 West M-28  
 906-575-3397  
[www.timberlinesport.com](http://www.timberlinesport.com)

### MINNESOTA

**Alexandria**  
**OLLIE'S SERVICE, INC.**  
 1213 Broadway  
 320-763-4455  
[www.ollieservice.com](http://www.ollieservice.com)

**Monticello**  
**MOON MOTORSPORTS**  
 3613 Chelsea Road West  
 763-295-2920  
[www.MoonMotorsports.com](http://www.MoonMotorsports.com)

**North Branch**  
**OLSON POWER & EQUIPMENT**  
 38560 14th Ave.  
 651-674-4494  
[www.olsonpower.com](http://www.olsonpower.com) **White Bear Lake**

**Tousley Motorsports**  
 1400 East County Rd. E  
 651-483-8296  
[www.tousleymotorsports.com](http://www.tousleymotorsports.com)

### MONTANA

**West Yellowstone**  
**>> YELLOWSTONE ADVENTURES**  
 131 Dunraven St.  
 406-646-7735 800-231-5991  
[www.yellowstoneadventures.com](http://www.yellowstoneadventures.com)

### NEW HAMPSHIRE

**Alton Bay**  
**IRWIN MARINE POWERSPORTS OF ALTON**  
 723 East Side Dr., Rt. 28A  
 603-875-5700  
[www.irwinmarine.com](http://www.irwinmarine.com)

**Troy**  
**TROY ARCTIC CAT**  
 136 North Main St.  
 603-242-7839  
[www.troyarcticcat.com](http://www.troyarcticcat.com)

### NEW YORK

**Phoenix**  
**>> INGLES PERFORMANCE, INC.**  
 413 Besaw Rd.  
 315-598-7422 888-246-4537  
[www.inglesperformance.com](http://www.inglesperformance.com)

**Rosendale**  
**>> ARCTIC ADVENTURES**  
 2048 Rt. 32  
 845-658-8844  
[www.arcticadventures.com](http://www.arcticadventures.com)

### PENNSYLVANIA

**Watsonstown**  
**>> KURTZ MOTORSPORTS, INC.**  
 3720 Springtown Rd.  
 570-538-2160  
[www.kurtzmotorsports.com](http://www.kurtzmotorsports.com)

### VERMONT

**Derby**  
**WALT'S SALES & SERVICE**  
 1972 Rt. 5  
[waltsskidoo@hotmail.com](mailto:waltsskidoo@hotmail.com)  
 802-766-5583  
[www.waltsvt.com](http://www.waltsvt.com)

### WISCONSIN

**Johnson Creek**  
**ROB'S PERFORMANCE MOTORSPORTS**  
 601 Hwy. Y  
 920-699-3288  
[www.robspformance.com](http://www.robspformance.com)

**Luxemburg**  
**SIMONAR SPORTS**  
 1601 Main  
 920-845-2725  
[www.simonarsports.com](http://www.simonarsports.com)

**Monroe**  
**MONROE POWERSPORTS**  
 2820 County Hwy. DR  
 608-325-5056  
[www.mpsskidoo.com](http://www.mpsskidoo.com)

**Oak Creek**  
**SPORTLAND 2, INC.**  
 7221 South 13th St.  
 414-764-2800  
[www.sportland2.com](http://www.sportland2.com)

**>> Look for the next issue of American Snowmobiler at these fine dealerships.**

Dealers in this ad have paid to participate in a co-op program with AMERICAN SNOWMOBILER. This list represents only a partial number of Ski-Doo dealerships across North America.

# The SNOW is coming, will you be READY?

Visit **www.AmSnow.com**  
for all of the details!

AMERICAN  
**SNOWMOBILER**  
magazine



# Jump On. NEVER STOP RIDING.

Subscribe to *American Snowmobiler* and  
get **6 EXCITING ISSUES**, which include:

- The industry's No. 1 Buyers Guide, full of stats, prices, and data from exclusive *AmSnow* tests.
- Honest evaluations of the latest sleds and products.
- Expert tech advice & how-to stories.
- Exclusive real world shootout info, vintage stories, and more.

## Subscribe To AMERICAN SNOWMOBILER Today!

Order online at **AmSnow.com** or call **800-533-6644**

Outside the U.S. and Canada call 813-910-3616. Please have your credit card ready.



**PRINT  
& DIGITAL  
EDITIONS ARE  
AVAILABLE!**

## Studs are more than numbers

**Q** I'm looking for stud quantity, size and pattern for a 2007 Arctic Cat F5? – *Gramps*

**A** The stock track for that machine is a 15x128x1.0-inch track. So you'll want at least a 1.08-in. stud length and a count of 102 as a minimum recommendation.

Tunnel protection should be standard on your sled, but it wouldn't hurt to double check.

Recommended stud quantity, size and pattern will differ by the brand of traction product you choose and your personal preference/riding style. Some traction companies offer both a trail "safety" package and a

"performance" package for the same sled. Regardless, you can find application guides for your sled on many of the major traction companies' websites. Here are a few traction product websites to get you started:

• **Woody's Traction Products**, [www.appguide.woodystraction.com/my-sled](http://www.appguide.woodystraction.com/my-sled)

• **Stud Boy Traction**, [www.studboytraction.com/general/studdingwearbarhelp.html](http://www.studboytraction.com/general/studdingwearbarhelp.html)

• **Mack Studs**, [www.mackstud.com/index.php/online-track-templates](http://www.mackstud.com/index.php/online-track-templates)

– *Experts*



**Q**  
+

**A**

OUR TECH EXPERTS STEER YOU IN THE RIGHT DIRECTION!

### Ski-Doo Comparo

**Q** I want to upgrade from my '02 MXZ 700 to a '05 MXZ 600 SDI Renegade. How do you think they compare? – *Anonymous*

**A** You're talking about two different chassis and engines, so comparing the two is difficult. But since you asked ... The 2005 MXZ Renegade marked the second year of the "rider-forward" REV chassis from Ski-Doo. You'll sit more over the engine than the behind-the-engine feel of the '02 MXZ built in the ZX-X chassis. Both engines are widely regarded as more than capable. We'd venture to guess you'll find the larger 16x136x1.25-inch track on the Renegade even more to your liking on and off the trail than the 15x121x1.0 of the 2002 MXZ. However, the super-wide 47-inch ski stance of the Renegade may not be as friendly in boondocking situations as you'd like it to be. Over time, the OEMs discovered a narrow stance was actually bet-

ter for off-trail maneuvers. But each rider has his or her own style/preference, so what we think may not always be exactly what you're looking for! – *Experts*



### 600 SDI MPG

**Q** I bought a used 2006 Ski-Doo Renegade 600 H.O. last year with about 4,000 miles on it, but in immaculate condition. It has only one problem: horrible gas mileage. It's a consistent 10-12 mpg for groomed trail riding. I have ridden with

several of these 2006 600 H.O. engines in the past, and they are very capable of 16-20 mpg. Where do I start looking? Is this a sensor problem, a fuel system problem, or an ECU problem? – *Mikuni Madman*

**A** If it is a carbured version, there are several things that can be done. A lot of my customers have dropped one main jet size, and taken the plastic packing washer that is under the jet needle and put it on top of the clip that holds the needle. This improved performance and netted better fuel economy. You have to be careful to pay attention to the amount of ethanol in the fuel you're using. When doing any carb recalibration, always check piston wash and plug color, and adjust jetting as needed.

The next option is changing your drive ratio. Many owners of that sled will drop a tooth size or two on the jackshaft. That will result in a transmission that works easier to maintain mid-

range trail speeds and may actually be able to sustain your current top speed. Both of these simple modifications should get your machine running better and more efficiently. Always pay attention to belt condition, idler wheel bearing condition and track tension. – *Todd Guthrie, Dyna-Tek Performance*

### Checking other MPG issues

There are a couple of things that should be checked, and could be culprits causing gas mileage to decrease. First thing that should be done is a leak down check on the engine. Reduced compression is one of the main culprits that can cause reduced gas mileage. Others include poor spark, plugged air intake, broken reed valve, or improper reed valve seal. The ECU will typically not cause any fuel mileage issues. – *Jason Houle, Straightline Performance*

### XCR 800 engine answers

**Q** On the XCR 800 crankshaft, do all three of the rod journal pins press out of the counterweight parts of the crankshaft? There used to be a company that made Pro-TI rods, titanium connecting rods. Is this company still around, or is there another that makes lighter and stronger rods? – *cool storm*

**A** The crank should be a full pin style and titanium is cool but not necessary. If you want some crank upgrades, go with hybrid bearings or full ceramic, and just a better quality rod. – *Todd Guthrie, Dyna-Tek Performance*



## THE BARGAIN LOT



**Looking for a used sled?** We recount one of our past sled experiences!

**WHAT WE LIKED:** Great sled for newbie or young rider. Comfortable, warm and easy to handle on the trails. Plus, it has a nice price point, reverse and electric start, and it takes 87 octane!

**WHAT WE DIDN'T:** Tough to keep up with the 6's and 8's across the lake. Louder than the liquid-cooled sleds, and lagging in throttle response.

**POSSIBLE RECALLS:** None, per U.S. Consumer Product Safety Commission ([www.cpsc.gov](http://www.cpsc.gov))

2008 ARCTIC CAT F570

**Engine:** 565cc fan, twin 2-stroke **Front Susp.:** AWS VII double-wishbone A-arms **Rear Susp.:** Slide-action frame w/coupling blocks **Top Speed (mph)\*:** 69.9 **Avg. MPG\*:** 13.6 **Wet Weight (lbs.)\*:** 583 **MSRP / KBB Quote\*\*:** \$6,499 / \$2,420  
\*AmSnow Real World tested. \*\*Assumes stock sled in excellent condition bought from dealer.

### Reader response

#### **Q** Ski-Doo vs. Polaris

Just wondering if anybody used a TRA primary with a Polaris secondary and if there is any difference compared to Ski-Doo secondary. – *mach69x*

**A** The Polaris and Ski-Doo button helix secondaries are just about clones of each other. The real differences would be in the way you set them up for the primary. The TRA needs a lot more spring tension and different angles than a P85 primary would need. I'd say the change isn't worth exploring because it would require a new jackshaft due to the different secondary shaft size. – *chines*

**20%**  
IN 1998, POLARIS USED A NEW, U.S.-BUILT 600cc ENGINE IN ITS RMKS, PROVIDING 20% MORE HP OVER THE PREVIOUS YEAR'S MODEL.

## ■ ASK THE EXPERTS

## ➔ MORE XF MOD OPTIONS

### XF 9000 recommended trail upgrades

**Q** I recently bought a 2015 XF 9000 Limited and would like to change the sound of the motor without being too loud. I have also heard the tuners really bring the engine to life, but I don't want to jeopardize reliability. What are your recommendations? – *DirtyHarry*

**A** You've asked this question in the right issue of *AmSnow*! Our Tech Editor,

Olav Aaen, has a full article detailing a couple of aftermarket tuners on pg. 44. There are many options to consider depending on budget, ease-of-use preferences and where a particular tuner might be most usable (in the shop vs. on the trail).

As far as upgrading your exhaust, there's a multitude of options with legally acceptable decibel levels for trail riding. Most options will run \$300-\$450. What you end up with will depend on what's

That is a very bulletproof engine in that sled. Any of the four stage ECU programs work great, and all need an aggressive clutch kit to complement the additional power. It's a turbocharged engine, so you can use just about any aftermarket silencer and maintain good sound levels for trail riding, since the turbo chops up the sound all on its own. One of the best purchases is a four wheel axle kit, and make sure clutch alignment is on for belt longevity. This machine in stock form is a touch faster than the best 800s in the 2-stroke category. With the ECU reprogramming, it is unstoppable on the long straights. With some good suspension tuning, it can also be fun in the tight twistlers. – *Todd Guthrie, Dyna-Tek Performance*

most important to you. If weight savings is most important, you might consider a carbon fiber option such as

the one from Straightline Performance ([www.straightlineperformance.com](http://www.straightlineperformance.com)), which saves 18 lbs. If noise level is less a

## Clutch won't engage

**Q** I bought a '98 Polaris 600 RMX twin cam. It's been sitting for six years. I got it running, but I'm having issues with the clutch. It won't kick in until about 7000-8000 rpm. I replaced the spring because it was broken. I put new weights on it and they are a slightly heavier 62 grams. I took apart the clutch and cleaned it, but it STILL didn't kick in until about 7000-8000 rpm. Can anybody help me? – *rmx600*



**A** If it is not engaging until 7000-8000 rpm, the drive clutch has a major problem. I'd assume it is binding on a bushing or has a bad roller. Since it is a 1998 model (17 years old), I'd pull both clutches off and go through them completely. You will most likely find multiple problems that are causing this issue.

On the drive clutch (the one hanging on the engine), you'll first need to check both bushings in the moveable sheave, and the shaft needs to be inspected for rust or corrosion that would keep the bushing from sliding freely on it.

Second, check each of the rollers that the weights ride on to ensure they are moving freely and they have no flat spots on them. On a sled that has been sitting for a number of years like this, it is very common for rust or corrosion to develop on the shaft that the bushings ride on (both the main shaft that the moveable sheave bushings ride on as well as the pins that the rollers ride on).

Third, check for rust or corrosion between the weight bushing and the

weight pin, which would lock the weight to the pin. Corrosion in any of these areas will keep the clutch from shifting until the centrifugal force is high enough to force the clutch to shift past this point. That would explain the 7000-8000 rpm engagement.

Finally, to verify that the moveable sheave will shift properly, pull the cap off of the clutch, remove the spring and then torque the cap back in place. Now run the clutch by hand through its full range of motion to see if there are any "sticky" spots in the shift. This way, you can tell if you have a tight bushing or an issue with your buttons. Once you ensure that the clutch shifts properly, reassemble it with the spring in it. The cap and spider both have an alignment "X" mark on them. Make sure and line the X's up when reassembling it.

On the driven clutch, again I would check both bushings and check the shaft for corrosion. This sled has a button secondary on it, and the buttons and large diameter bushing that runs on the helix

are the most common problems. The outside of the helix will have bushing material transferred onto it that will need to be cleaned off.

Also, if you look at the helix bushing and see the copper exposed, then it's time to change the bushing (if it has many miles on it, it will be bad). Before putting it back together, make sure to polish the ramp area of the helix where the buttons ride. This will make the clutch shift much smoother.

The driven clutch will have no effect on your engagement rpm, but if you do these simple service items, it will shift much better than if you leave it alone. When you reassemble it, the clutch has to be wound past one ramp to preload the spring. Also, pay attention to the hole position the spring is in and put it back in the same place as before. This would also be a good time to replace the driven spring, as I'm sure it has lost tension over the years. We recommend replacing springs every couple of years. – *Jerry Mathews, Starting Line Products*

concern, you could look at the Competition Series by Speedwerx ([www.speedwerx.com](http://www.speedwerx.com)), which saves 15 lbs. but is slightly louder and designed for competition use. Bikeman Performance ([www.bikemanperformance.com](http://www.bikemanperformance.com)) has had plenty of success with its Full Velocity muffler, which offers a weight advantage of 9 lbs., a 13-14 hp gain and only 5-6 db more than stock.

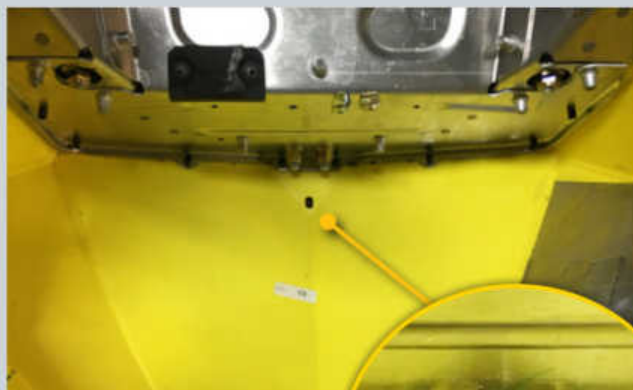
Cosmetic concerns, such as sound and appearance, are only part of the equation for selecting exhaust items.

A lot will depend on what your desired performance benefits are, if you run any different fuel programs with the tuner, etc. Our best advice would be to get on the phone and talk to any of a multitude of aftermarket companies that work on turbo Cats to see what they'd recommend for your application. — *Experts*

## New Indy 800 motor?

**Q** I know that the new AXYS has a new version of the Cleanfire 800 motor that was not put into the 2015 Indy 800. Does anyone know what version of the 800 will be put in the new Indy 800? — 1000cc

**A** Right now, our best guess is that the 2017 800 Indy will still have the former 800cc engine (not the new H.O. version), since the Indy still sits in the Pro-Ride chassis. The AXYS chassis and the 800 H.O. were developed by Polaris in tandem. The motor mounts and more are different. Unless something changes on the Pro-Ride chassis, the new H.O. engine simply isn't going to fit correctly. With the success of the AXYS, it may not be worth the engineering investment to make that happen. — *Experts*

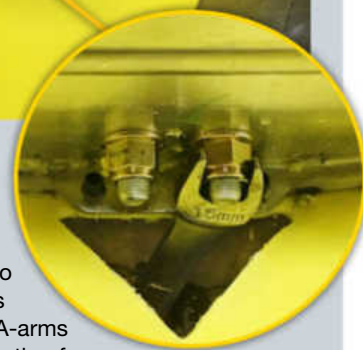


## PRO TIP ►

Ski-Doo Backcountry Pro

Tony Jenkins shares one of his favorite tips to make changing A-arms easier and improve snow evacuation from your sled's belly pan:

"If you're looking for an easy way to change out your A-arms AND let snow/water drain out easier, cut a small hole in the bottom of the belly pan. Here's an example. I seem to change A-arms out often with my riding style."



**HILDEBRAND'S**  
**SEE★DOO Clinic**  
Michigan's Largest Cylinder & Crankshaft Exchange

**ENGINE REMANUFACTURING:**  
SNOWMOBILE, WATERCRAFT AND OUTBOARD

**CYLINDERS • CRANKSHAFTS**

Mark Hildebrand Phone: 517-238-5955  
298 S. Fremont Rd  
Coldwater, MI 49036 [www.seadoclinic.com](http://www.seadoclinic.com)

**Sherlock Performance**  
Central Square, NY

[www.tracksforless.com](http://www.tracksforless.com)  
[www.snowcitymi.com](http://www.snowcitymi.com)  
(517) 369-2001

**TRITON TRAILERS**

[tritontrailers.com](http://tritontrailers.com) • 866-687-4866

**SALE** FOX FLOAT 2-\$395 FLOAT EVOL R-\$725  
FOX ZERO PRO SHOCKS STARTING AT \$99 (SUPPLIES LIMITED)

**Carver Performance**  
CHECK WEBSITE FOR DETAILS AND SALES!!  
SHOCK PARTS & SERVICE FOR ALL BRANDS!!

**888-349-7469**  
[WWW.CARVERPERFORMANCE.COM](http://WWW.CARVERPERFORMANCE.COM)

## QUESTIONS

about your  
**American Snowmobiler**  
subscription?

- Change of address
- Pay your bill
- Renew your subscription
- Gift a gift



Go to  
<http://Subscribe.AmSnow.com/Help>

LARGE INVENTORY OF USED SNOWMOBILES FOR SALE

**Sunnyside** Snowmobile Accessories  
Sales & Service Inc.  
Chippewa Falls, WI  
715-723-9377 • 715-723-9344  
[snomosalvage@gmail.com](mailto:snomosalvage@gmail.com)

- New, Used & Rebuilt Parts for most makes and models
- Buy, sell, trade
- Top dollar for snowmobiles & salvage
- Cranks and Cylinders (Rebuilt & Used)
- Electrical
- Engines (Rebuilt and Used)
- Hoods
- Suspension
- Tracks (New and Used)

Service on ALL Makes and Models

UPS available daily  
Ship parts world wide

[www.SnowmobileSalvageParts.com](http://www.SnowmobileSalvageParts.com)

**STRAIGHTLINE PERFORMANCE**  
[www.straightlineperformance.com](http://www.straightlineperformance.com)

**SPI** (651) 466-0212

**Dynamo Enterprises**

Tired of blowing belts  
on your Cat turbo?

[www.dynamo-enterprises.com](http://www.dynamo-enterprises.com)  
315-374-8891

### Polaris Edge RXL Graphics Kit

**PHIL LITTLE RACING** now offers an inexpensive way to give a vintage look to your 2001-2006 model Indy Edge (smooth plastic bumper). This seven-piece RXL retro graphic kit is made from high-quality printed vinyl with a fuel-resistant clear coat, and the red and white graphics look best on dark-colored hoods. Instructions are included if you want to apply the adhesive pieces yourself, or you can have a sign company do it. Cost: \$189. **More info:** [www.phillitteracing.com](http://www.phillitteracing.com)



Photo by Wayne Davis Photography



### Cyclone 2.0 ADV Helmet

**POLARIS' CYCLONE HELMET** gets an upgrade this season with a new, improved fit that enhances rider comfort. The Snell 2010 and DOT-certified helmet is composed of a strong, lightweight fiberglass shell with an impact-absorbing EPS liner for added protection. The dual-pane shield features anti-fog and anti-scratch coatings, or you can opt for an electric shield. Available in red-, black- or blue-based color combinations, sizes XS-4XL. Cost: \$219.99 (\$289.99 with electric shield). **More info:** [www.polaris.com](http://www.polaris.com)

### Yamaha Combination Trunk Bag

**THIS TUNNEL BAG/SADDLEBAGS** combo allows you to increase your luggage space with plenty of compartments to keep your items organized the way you want them. Made of durable, weather-resistant 1000-denier nylon with 800-denier nylon accents, this storage solution fits perfectly on 2014 and newer SR Vipers (except S-TX DX 137, S-TX DX 146, M-TX and 2015 X-TX LE). Cost: \$226.95. **More info:** [www.shopyamaha.com](http://www.shopyamaha.com)



### Gyde Calor Vest

**RACK UP BIG MILES** on the trail and stay warm by wearing Gyde's high-tech heated garments. Battery-operated and mobile app-powered, the Calor Vest provides up to eight hours of heat. Lightweight and comfortable, the vest has four Microwire heating zones (collar, back and two in the chest) that reach temps as high as 135 F to keep you toasty, even on the coldest days. Available in a variety of colors, men's sizes S-2XL and women's sizes XS-XL. Cost: \$299.99. **More info:** [www.gydesupply.com](http://www.gydesupply.com)



### LJE Snow Dust Buster

**SNOW DUST CAN OBSCURE** your taillight and make you less visible to riders behind you, especially at night. This product mounts to the back of your helmet (up above the dust), increasing your visibility and making it much safer to ride in a group. It comes standard with a red high-output, 8-inch LED strip (170 lumens of bright light), but other colors (green, purple, blue, orange, yellow, pink) are available for \$5 more, so you can distinguish between different members of your group. The kit comes with a power adapter that attaches to a heated shield cord. Cost: \$39.99. **More info:** [www.ljeproducts.com](http://www.ljeproducts.com)





### Ski-Doo Articulated Rear Suspension

**STOCK SUSPENSIONS CAN** get bogged down when you're moving in reverse, but this kit reduces trenching in soft-snow conditions. It features two modes, so you can adjust between a locked down setting and float position as needed. When riding in articulated mode in deep snow, the tension in the track keeps the articulation down. The kit fits both tMotion and SC-5M. New rails and hardware are included. Cost: \$499.99 (154"); \$599.99 (163" and 174"). **More info:** [www.store.ski-doo.com](http://www.store.ski-doo.com)



### Arctiva Comp RR Gloves

**THESE RUGGED GLOVES** feature a pre-curved design with gathered elastic stretch panels and leather knuckle pads on all fingers for a more flexible fit. A layer of waterproof Clarino in the palm and a light lining of 3M Thinsulate help your mitts stay dry and warm. Graphics are printed on reflective material for added visibility. The long style includes adjustable cuff straps, wrist straps and a waterproof, windproof and breathable Hipora membrane liner. Cost: \$55 (short), \$65 (long). **More info:** [www.arctiva.com](http://www.arctiva.com)



### PRO Shift Clutch Kit for Ski-Doo

**MADE TO FIT** on XP, XM, and XS models, this kit features a custom-machined helix, a new primary spring, a driven spring, and an adjustable pin kit. Speed Shop's smooth shift bearing reduces friction for a very quick throttle response. The flatland kits are designed for fast acceleration and aggressive trail riding. The mountain kits are designed for lightning-quick throttle response in deep snow, so they pull strong up the hill but are also great for boondocking. Cost: \$199.95; \$224.95 for low-altitude 800 models. **More info:** [www.speedshopinc.com](http://www.speedshopinc.com)



### Divas SnowGear Craze Jacket

**DSG EXPANDED** its Craze lineup this year by adding two new colors: black camo with pink zippers and black with gradient blue zippers. The insulated shell features a breathable and waterproof coating, seal-taped seams, underarm vents, and a magnetic snap enclosure over the front zipper. Bonuses include an interior zippered pocket with a headphone port, and lycra wrist gaiters with thumb holes. Sizes XS-5XL. Matching bibs available. Cost: \$209.99. **More info:** [www.divassnowgear.com](http://www.divassnowgear.com)



### Jetboil Flash Cooking System

**WHETHER YOU'RE CLIMBING** mountains or logging big miles on the trail, this compact cooking system from Johnson Outdoors Gear, Inc. can provide a much-needed pick-me-up. When connected to a small canister of propane fuel mix, the system lights and boils water in about two minutes, so you can have a hot cup of soup, coffee, cocoa, or any warm trailside concoction in a jiffy. Cost: \$99.95. **More info:** [www.jetboil.com](http://www.jetboil.com)



### NEXTECH Carbon Fiber Rails

**MADE OF AEROSPACE IM7 CARBON FIBER**, these rails are both stronger and lighter (about 4-6 pounds per set) than standard aluminum rails. They feature a new, higher profile, and they're coated with a glossy, automotive-grade clear coat to shed ice and snow. The rails come with tips, bump stops, adjusters and sliders installed. Available in sizes from 120 to 174 inches long (custom cut to any wheel size). Cost: \$1,500 CA per set. **More info:** [www.carbonsled.com](http://www.carbonsled.com)

## ■ HOT PRODUCTS



### Motorfist Freeride Jacket

**ARTICULATED SHAPING** combined with an all-new design, the Freeride Jacket is specifically crafted to provide complete mobility for the most aggressive backcountry riders. The lightweight three-layer eVent fabric offers superior waterproof, breathable technology. Other features include a removable hood and Aquaguard Vislon zippers. Available in six vibrant colors, sizes S-2XL. Cost: \$379.99.

**More info:** [www.motorfist.com](http://www.motorfist.com)



### Z1R Phantom Peak Helmet

**CLEAN LINES AND** a comfortable fit are the hallmarks of this helmet. Features include fully adjustable venting, a removable breathe box and chin curtain, and removable, washable cheek pads. The dual-lens anti-fog shield can be easily swapped for an optional electric shield (no tools required). Available in sizes XS-2X. Cost: \$109.95 (black/blue, black/green, black/red, black/orange, black/stealth, or black/pink); \$89.95 (black with dual lens); \$139.95 (black with electric shield). **More info:** [www.Z1R.com](http://www.Z1R.com)

### NATHAN IceStorm Insulated Waist Pak

**STAY HYDRATED** while you ride with this lightweight, bounce-free, and chafe-free pack. An IceCutter cap with a blast valve and a hand warmer pocket behind the bottle prevent fluids from freezing, and the zipper pulls are oversized to make them easier to operate with gloves on. Extended side panels hug the body comfortably, and the large zippered pocket can hold your small essentials. Cost: \$60. **More info:** [www.nathansports.com](http://www.nathansports.com)



### RT Spring Scratcher with UFBB2 Multi-Mount Ski Brackets

**INSTEAD OF MOUNTING** your ice scratchers to the rails, mount them to the skis to direct snow spray at the front of your track. Unlike a cable-style ice scratcher, this one offers more constant pressure over time. It also features automatic reverse adjustability, so you won't have to lift it up when your sled is moving in reverse. Cost: \$99.95. **More info:** [www.altimategear.com](http://www.altimategear.com)



### BiteHarder Side Support Pole

**THESE INTERLOCKING ALUMINUM** poles safely hold your snowmobile on its side, making it much easier to sharpen your carbide runners and studs, adjust your suspension or inspect your track. A fully adjustable clamping mechanism makes it possible to tip the sled at any angle, and a rubber-tipped bottom grips garage floors or pavement. The universal handlebar adapter works with any snowmobile, and a removable snow basket allows for trailside use in packed powder conditions. Cost: \$29.95. **More info:** [www.biteharder.com](http://www.biteharder.com)



### Heat Holders Wool Socks

**COMBINING THE BEST** qualities of natural wool with Heat Holders' knitting and brushing technology, these socks are super soft and comfortable and provide all-day warmth for long trail rides. They boast a 2.7 TOG rating (Thermal Overall Grade, a scientific test that measures the heat-retaining capacity of fabric), which makes them about eight times warmer than typical cotton socks. Available in men's sizes 7-12 and Womens' sizes 5-9. Cost: \$20.99 (crew); \$24.99 (long). **More info:** [www.heatholders.com](http://www.heatholders.com)



### WRP Universal Tunnel Bag

**NO NEED TO WORRY** about sled compatibility, as this soft storage solution from Wasatch Recreational Products is designed to fit all snowmobiles with adequate tunnel space. The main storage compartment (14x12x6 inches) includes built-in drink holders. The exterior features a custom pouch for a shovel and a handle. Rubberized no-slip straps and no-slip vibration pads hold the bag in place. Cost: \$179. **More info:** [www.wr-products.com](http://www.wr-products.com)



### OGIO Access Action Camera Backpack

**DO YOU KNOW SOMEONE** who is serious about capturing live snowmobiling footage with a GoPro camera? Then get them outfitted with this OGIO mid-size adventure backpack. It has multiple storage compartments (including one that is adjustable and removable) for all your action camera accessories. A built-in laptop sleeve with dual zippered pockets allows you to edit and upload your video on the go (as long as you can find an elusive Wi-Fi connection). Cost: \$199.99. **More info:** [www.ogio.com](http://www.ogio.com)



### Custom Cat Wraps

**MAKE A VISUAL STATEMENT** by adding a custom wrap to your ProCross or ProClimb model Cat. Nine different graphic styles are available here, along with multiple color options for each. These premium graphics are screen-printed for color accuracy with UV-resistant metallic inks for rich, long-lasting quality. They're sized identically to OE graphics to ensure optimal fit and ease of installation. Hood and tunnel kits are sold separately and include both right and left graphics. Cost: \$199.95 and up (hood), \$109.95 and up (tunnel). **More info:** [www.store.arcticcat.com](http://www.store.arcticcat.com)

### ECOXGEAR EcoPebble

**GADGET LOVERS WILL DIG** this product that is less than three inches long and simultaneously serves as a portable Bluetooth speaker and a 10,000 mAh charging station for electronic devices. The tough EcoPebble is IPX7 waterproof and will float if you drop it in a lake or river. Once fully charged, it offers seven hours of play time. It's also mountable via a camera mount screw post. Cost: \$59.99. **More info:** [www.ecoxgear.com](http://www.ecoxgear.com)



### FLY Racing Title Cold Weather Glove

**IF YOU'RE LOOKING** for a short and minimal lightweight glove that doesn't sacrifice much in the way of warmth, then look no further. This motocross-style glove was designed specifically for cold weather. The fingers are insulated with Thinsulate, but the palm isn't, and built-in touchscreen technology means that you won't have to remove them to read the text your buddy sent. A thumb stretch panel improves mobility and durability. Available in black/white, black/orange, and black/Hi-Vis. Cost: \$54.95. **More info:** [www.flyracing.com](http://www.flyracing.com)



**ON THE WEB** // More Hot Products at [www.AmSnow.com/reviews](http://www.AmSnow.com/reviews)



# KEYS TO THE KINGDOM

**SEVERAL MAIN ROUTES** in the Northeast Kingdom follow power line or pipeline rights of way, with ample variety in terrain.

Dan Guendert photos

## VERMONT SPINS A FAIRY TALE OF PERFECT SNOW AND SLEDS

BY MIKE CARR

**C**lose your eyes and imagine a magical kingdom, where corduroy-smooth, well-marked trails crisscross the scenic countryside. In every direction, deep snow blankets forested mountains, farms and quaint small towns ... a snowmobiler's paradise.

Now open your eyes and look at a map of Vermont, focusing on the northeast corner of the state and the three large counties there: Essex, Orleans and Caledonia. You've

just discovered the fabled Northeast Kingdom. It's magical, and it really does exist!

### ■ The Best Place to Play

The pie-shaped Kingdom encompasses approximately one-fifth of the state's area, and it's bordered by Canada to the north, the Connecticut River (and New Hampshire) to the east and the Green Mountains to the west. Seasonal snowfalls are significant across the top of the state, making this a prime locale for

winter recreation. The region features a massive web of trails – and they're good ones!

Last winter's bountiful snow in New England made Vermont a “go-to” location for those of us who were short on miles in the largely snowless Midwest. I had the pleasure of making a mid-March visit to the Northeast Kingdom along with Dan Guendert, an avid rider, blogger and photographer.

Our headquarters for the trip was the Wildflower Inn, a former farm near Lyndonville that is now an idyllic country estate, with lodging available in deluxe rooms and suites, as well as a quaint cottage that served as a one-room schoolhouse long ago. With a fine restaurant on site, living the country life couldn't be more pleas-

ant. Best of all, a short spur connects the property to the nearby trail network, making the location easily accessible.

Dan and I rode aboard a pair of Polaris 550 rental sleds, provided by NEK Adventures of nearby Saint Johnsbury and delivered to our door. In addition to snowmobile rentals, NEK offers seasonal ATV and snowmobile tours, making it a prime recreational resource.

Our traveling companions for the first day of riding were several representatives of VAST, the state organization also known as the Vermont Association of Snow Travelers: Cindy Locke (Executive Director), Kenny Gammell (Caledonia County Director), Jeff Fay (then Chittenden County Director) and



In every direction, deep snow blankets mountains, farms and quaint small towns ... a snowmobiler's paradise.

Thomasina Magoon (VAST Editor). Rounding out the group was Jack Savasta of NEK Adventures.

With decades of experience marking and grooming trails in this area, Kenny took the lead. Heading westward, we enjoyed smooth riding through the woods, under a power line and along several roadsides before passing beneath Interstate 91 near Sheffield. Shortly after, we encountered a flock of turkeys, who took flight as we approached. We climbed a succession of hills and each time descended into a rural valley, often crossing a running creek on a road bridge.

The high point of the morning was a climb to Standard Mountain lookout. The panoramic vista included a vast area of forests and fields, with a distant mountain range on the horizon. Not long after descending, we pulled up in front of the Cook Shack outside the town of Walden, where a gaggle of sleds were already parked – a promising sign. Volunteers from the Coles Pond Sledgers club serve visitors there all winter long.

No sooner had we dismounted than we were personally welcomed by George Peak, who operates the establishment with Colleen Willette, who was inside cooking up a tasty lunch for hungry sledgers. Well known throughout the region for their hospitality, the two were honored by VAST as Snowmobiling Family of the Year in 2013. Upon hearing that Dan and I were from far-off Wisconsin, George inquired about our assessment of the



**THE COOK SHACK** George Peak and Colleen Willette run this popular trail stop, which raises more than \$5,000 each year for local charities.

Vermont trails (two thumbs up!) and gave us some history.

According to George, more than \$5,000 in profits is donated each year to local charities. As for his own role in the operation, George quipped, "I wanted to be a greeter at Walmart, but this is way more fun!"

### ■ Fat-Tire Folly

Our afternoon ride featured a section of the former Lamoille Valley Railroad, a nearly 100-mile route that is now being

developed into a multi-use recreational trail under the leadership of VAST. When completed, it will be the longest rail trail in New England as well as a superb snowmobile trail. Our segment took us by Joes Brook Dam, through a rock cut and past the former Danville depot, now functioning as the town's recycling center. It began to drizzle as we stopped to refuel at Marty's 1st Stop in Danville, necessitating the occasional wipe of our face shields.

## THE FACTS

Vermont is renowned for excellent snowmobiling, largely due to its superb state organization, the Vermont Association of Snow Travelers (VAST). The statewide trail system – encompassing 4,700 miles of funded routes – is marked and maintained by VAST's 128 clubs statewide. They play a key role in trail access and work with the state in the sale and distribution of Trail Maintenance Assessment (TMA) passes. The TMA costs \$55 for a 3-day pass, and it's sold in combination with a club membership, the cost of which varies from club to club. Unlike most other states, this ensures that all users contribute fully to maintain the trail network. Just one possible model for a sustainable trail future!



# YELLOWSTONE ADVENTURES

- **Ski-Doo Snowmobile Rentals**
- **Yellowstone Park Guided Tours**
- **Sales, Service & Parts**
- **Clothing & Accessories**



Authorized Sub-concessionaire of the National Park Service

**Authorized Ski-Doo Dealer**

**(406) 646-7735**

[www.yellowstoneadventures.com](http://www.yellowstoneadventures.com)

131 Dunraven St., Box 669, West Yellowstone, Montana 59758

**ski-doo**



®TM Trademark of Bombardier Recreational Products Inc. or its affiliates.

**1-800-231-5991**



1-307-734-8898  
[www.scenic-safaris.com](http://www.scenic-safaris.com)



Yellowstone National Park  
Teton Backcountry  
Overnight & Day Snowmobile Tours

Permittee of the USFS & NPS, EOP

**ADVERTISE WITH US!**



To place your ad in *American Snowmobiler*

**Call Today!**

**888-558-1544 ext. 628**



**THIS IS WHAT** we need lots more of, everywhere – designated play areas (left)! The Wildflower Inn (right), located just outside Lyndonville, has easy trail access and a restaurant on site.



A humorous highlight of our return trip occurred while I was in the lead and mistook an unfamiliar trail marker as a place to turn, undoubtedly due to the drizzle obscuring my vision – or at least that was my excuse. This wrong turn took me onto a fat-tire bike trail, which I admit looked a bit odd. My companions recognized my mistake and stopped just long enough to see a surprised bike rider descend a hill and buzz past me, no doubt annoyed to see an oncoming sled on the bikes-only trail. Recognizing the error of my ways, I turned back to the main trail and let Kenny take the lead again to avoid further embarrassment.

Along our homeward route, we encountered a maple syrup operation alongside the trail, with plastic tubing strung between trees to collect and transport the liquid. However, the sap run had not yet begun, so we continued on our way, returning to the Wildflower Inn. The evening's highlight was our dinner at Everybuddy's Casual Dining restaurant in Lyndon, where Kenny recalled some adventures and misadventures, on and off the trails.

## ■ A Good Drag

What a difference a day makes! When we awoke the next morning, snow was in the air and four inches had already fallen by the time we finished breakfast, coating our sleds with enough fresh powder to set our hearts pumping in anticipation. It was the perfect prelude to a full day of snowy conditions and excellent riding. Joining Kenny, Cindy, Dan and I for the day was Carmin Lemery, the VAST Director from Lamoille County.

After fueling the sleds at a station in nearby East Burke, Kenny took us on a succession of single-track, deep-woods trails, with snow-laden branches arching overhead. The way was narrow, but it was fun riding the old-fashioned way.

"These are the original trails put in by local riders in the 1970s," Kenny explained, "and they're still using snowmobiles pulling

small drags to groom them, including several that I built decades ago, myself."

Sure enough, after a few more miles, we encountered a snowmobile with a fully functional drag made by Kenny.

Back on the main route and heading north, we enjoyed smooth cruising on a succession of unplowed but groomed roads, with many broad, sweeping turns and changes of elevation. After a few miles on the Yellow Bucket and West Branch Trails, we stopped at "The Roost," a hunting cabin left open for passing snowmobilers and featuring a notebook to leave signatures and comments. Inside the shack, we chatted with local sledders delighted to discover a couple of Midwesterners in their midst, and they asked us about riding in the Badger State.

Before long, we arrived at Island Pond, with two options to reach town – across a lake or over a mountain. We chose the opportunity to do a climb and descent before finding a combination convenience store and café for lunch.

After our midday repast, we refueled our machines and started homeward. On our way out of town, the trail took us through a huge lumberyard, where high stacks of packaged timber towered over passing sleds. Outside of town, we discovered a large, open area marked prominently as a Snowmobile Play Area – so we took advantage of the opportunity, carving powder and romping in the deep stuff. Great fun!

The final legs of our return trip included a southward trek beneath huge power lines, with giant boulders strewn alongside the trail, as well as a westward trip over a pipeline right-of-way. Before long, we arrived at the town of East Burke, then made the short hop back to the Wildflower Inn. With new snow coating the landscape like frosting on a cake, we enjoyed another delicious day of riding in the Northeast Kingdom.

If you want some of the best riding that New England has to offer, put this place on your list! 🐾

# WARM YOURSELF BY THE BLACKJACK TABLE.

Make a pit stop — we're right off the trails.

## Marquette

On Highway M-28  
(906) 249-4200

## Baraga

On Highway M-38  
(906) 353-6333

For more info, call or stop by Guest Services.

 [OJIBWACASINO.COM](http://OJIBWACASINO.COM)



**Bear's Nine  
Pines Resort**

**906-842-3361**



**GOD'S COUNTRY**

LAKE GOGEBIC/MICHIGANS U.P.

YOUR WINTER VACATION DESTINATION

[www.ninepinesresort.com](http://www.ninepinesresort.com)



**ON THE TRAIL!**

- GREAT FOOD, FREE WI-FI
- 1-3 BEDROOM VILLAS & CONDOS WITH FIREPLACES (SOME HAVE HOT TUBS)
- MOTELS/SUITES

**MIDWEEK SPECIALS  
FROM \$85/NIGHT**



[www.chanticleerinn.com](http://www.chanticleerinn.com)

Reservations: 1-800-752-9193

1458 E. Dollar Lake Rd.

Eagle River,

WI 54521

**Chanticleer**  
715-479-4486 **INN.**

Get Your

*West on*

*Ready, Set, Explore*

Visit our website for a free vacation guide.

visit [www.wyomingcarboncounty.com](http://www.wyomingcarboncounty.com)

Sponsored by the Carbon County Visitors' Council



[facebook.com/carboncountywy](https://facebook.com/carboncountywy)





# Custom 1970 Scorpion Stinger

## Making Vintage Modern

➤ **David Ice** from central Minnesota started with a basket-case 1970 Scorpion Stinger powered by a German-made Hirth 440cc twin. He brought it home in boxes. The tunnel was bent, dented, rusty and cracked, making it a great candidate for the project ahead.

### ■ YAMAHA, CAT, SKI-DOO, POLARIS ... AND OTHER BRANDS ADD CHARM!

It took him two years off and on to get it right. He began transforming this sled with the use of a 2008 Yamaha Attack A-arm setup that he thought might work. These Attack A-arms differ from standard ones, with aluminum upper arms for a little less weight. The front suspension ended up being 48 inches wide, which gives this sled a very stable ride. With this A-arm suspension, it brought the height of the front, below the belly pan, up to a clearance of 10 inches.

He used Yamaha plastic skis with dual wear rods to keep the sled from darting. David made sure the rear of the skis didn't contact the track when turning. People who have driven his Scorpion say it feels like it has power steering! That

being said, he almost gave up on his build when he couldn't make the steering work right. He devised an industrial cam follower to use with the rack steering. It worked great! Now the Scorpion is around 105 inches long.

I have remarked that this Scorpion could be called a "Heinz 57" with all the different snowmobile company parts used on it! The rear suspension came from a 136-inch 2008 Polaris Touring M-10. It has three shock absorbers (instead of bogey wheels) for a plush ride. The shock absorbers were rebuilt, valves changed and springs cut down to make a lighter sled and again, a softer ride.

David figured he could only use a 0.75-inch rubber track lug to clear the tunnel, so he found an Arctic Cat 136 track that fit. He also used an Arctic Cat driveshaft with an 8-lug drive. With the driveshaft being long, he turned down the right side of the shaft and put a key-way in it for the brake disc.

David used a Ski-Doo Summit hydraulic brake setup for this sled because it was held with only two bolts through the tunnel. David also had to build out the

belly pan to accept the disc brake on his front driveshaft.

On this model Scorpion Stinger, the original fuel tank was made into the belly pan. David made a 2.5-inch seat riser and cut out the center of the seat to hold a hand-built 5-gallon fuel tank.

When you make so many adaptations, you have to make new places for a lot of things! For example, the muffler needed relocating because the brake assembly took up its usual placement. To ensure there wasn't any exhaust leakage, David used Yamaha exhaust bellows with Donaldson single mufflers, which send straight out the front of the sled, and it still works great!

Bumpers were re-chromed, and the hood and seat covers are reproductions, making it look like a "new" old snowmobile. Finally, David put a small Polaris toolbox under the hood for extra plugs and tools if needed.

Everybody that sees David's Scorpion Stinger at shows sure likes what he's done. He doesn't know how many hours he has worked on this project, but from my view I'm sure glad he did it. We can call this Stinger a modern-day cruiser. 🐾



*Minnesotan Les Pinz is a vintage sled expert with an extensive collection of historic and other antique sleds, and is a former snowmobile racer. He is a member of the International Snowmobile Hall of Fame and one of AmSnow's regular test riders.*





# **WHEN DOMINATION IS IN YOUR NATURE, ALWAYS MAKE SURE IT'S IN YOUR MACHINE.**

*Whether it's boats or personal watercraft, ATVs or snowmobiles, there's a Mystik® lubricant specially formulated for the machine that demands performance. No matter how extreme the conditions, our complete line of engine oils, greases, fluids and gear lubes provide the premium protection the pros need to dominate.*



Visit [MYSTIKLUBES.COM](http://MYSTIKLUBES.COM) to discover our whole line of Lubrication Domination®, or to find a retailer near you.

**Mystik**  
LUBRICANTS

FEED YOUR ADVENTURE.  
CUSTOM POWER BUILT FOR YOU.

[WWW.BOYESSEN.COM](http://WWW.BOYESSEN.COM)  
610.756.6818 | [INFO@BOYESSEN.COM](mailto:INFO@BOYESSEN.COM)



## ELIMINATE INTAKE BOOT FAILURE GAIN HORSEPOWER NEW FULL VALVE DESIGN!

**THE BOYESSEN RAGE CAGE IS THE ONLY INTAKE SYSTEM THAT IS OPTIMIZED FOR YOUR MACHINE.**

*Each Boyesen Rage Cage is unique - tailor made to each model, year and displacement. While other aftermarket valves might change flange sizes or bolt patterns, they're basically generic - and require you to irreversibly cut your intake boot to install it! But with the Rage Cage, there are no compromises in power, no modifications. The Result: A true, bolt-on Power Boost. CUSTOM-BUILT HORSEPOWER. UNPARALLELED PERFORMANCE.*



**RAGE CAGE. THE SMART CHOICE.**

**ARCTIC CAT // POLARIS // SKI DOO**

Kort Duce Photos for American Snowmobiler Magazine

 **Boyesen**  
LEADING EDGE PERFORMANCE



BoyesenEngineering



boyesenfactoryracing



@boyesenracing